

**MATTHEWS PAINT**

# Training Manual



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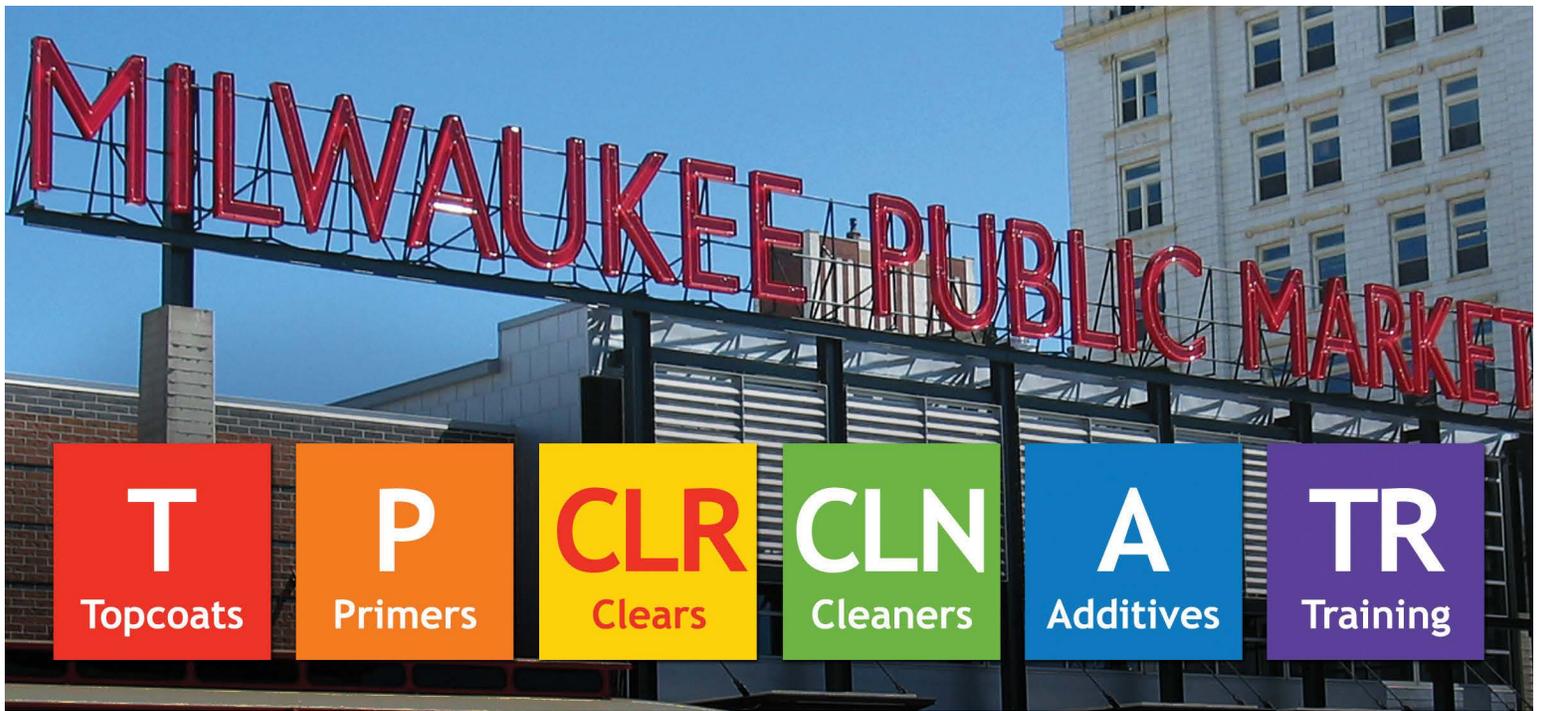
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# Introduction





# The Complete Matthews Paint System

For Ultimate Color, Durability and Protection

Developed specifically for the signage industry, the Complete Matthews Paint System is a total paint solution for the varied and extreme demands of architectural, commercial and outdoor sign applications.

- Highest quality sign paints available
- Hands-on technical training
- Custom color matching tools
- Experienced technical assistance
- Exceptional customer service



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# The Complete Matthews Paint System

## T Topcoats

**Matthews Topcoats** provide a long-lasting, UV resistant finish that boasts unsurpassed color and gloss retention. With three different lines to choose from—including the environmentally friendly MAP Ultra Low VOC—and unlimited color options, there is a topcoat to meet any project requirement.

## P Primers

**Matthews Primers**, including chromate-free and low VOC product lines, provide excellent paint adhesion to a variety of hard-to-adhere substrates and can be directly coated with any Matthews topcoat. In addition, Matthews primers offer increased paint durability, corrosion protection, and filling capability.

## CLR Clears

Available in all finishes for a variety of applications, **Matthews Clearcoats** protect your paint job while enhancing its depth and vibrancy. Comprised of the same durable resin as our color lines, Matthews clearcoats provide unparalleled resistance to UV rays, moisture, harsh weather, impact, chemicals, and graffiti.

## CLN Cleaners

**Matthews Cleaners** are designed to remove waxes, grease, silicones, and other contaminants on a variety of substrates including bare metal, plastics, primers, and more. Our environmentally friendly, ultra low VOC option is highly effective and compliant with most VOC rules nationwide.

## A Additives

Customize your application with **Matthews Additives** to achieve your project goals! Our suede additives provide a unique, textured finish. Matthews metallic toners help you achieve optimum brilliance. Brush and roll additives offer maximum leveling and flow characteristics. Our low VOC basecoat converters allow you to paint multicolor signs in hours instead of days.

## TR Training

Delivering free-to-attend world-class training in state-of-the-art facilities is just one more way that Matthews Paint helps you outperform your competition. **Matthews Training** classes provide both classroom style technical training and hands-on opportunities to practice what you learn.





# Safety



# Health Risks

## Potential Risks to Health:

- Inhalation of solvent vapors may lead to dizziness, nausea, mental confusion and in extreme cases, loss of consciousness. Irritation to the respiratory system and internal damage may also occur.
- Inhalation of dusts and spray mists may also lead to irritation of the respiratory system.
- Contact with skin may cause irritation and, with certain products, eye damage.
- Accidental ingestion may cause irritation of the mouth, throat and digestive tract resulting in vomiting and abdominal pain. Significant absorption may cause drowsiness or loss of consciousness.

Always know the risks involved in any painting operation.



## Summary of Risk Assessments:

The following table highlights the potential harm that could result from standard fabrication shop operations, all of which may be demonstrated at PPG training centers. The column titled “Action” lists the measures to be taken and the personal protective equipment that should be worn in order to minimize the risks for users.

Safety is everyone’s responsibility!

Operation	Potential Harm	Action
Precleaning	<ul style="list-style-type: none"> <li>• Inhalation of solvent vapors</li> <li>• Eye &amp; skin contact</li> <li>• Fire hazard</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure only performed in well-ventilated area that is free from sources of ignition</li> <li>• Protective clothing, solvent-proof neoprene or nitrile gloves, safety glasses, vapor-protective respirator</li> </ul>
Degreasing	<ul style="list-style-type: none"> <li>• Inhalation of solvent vapors</li> <li>• Eye &amp; skin contact</li> <li>• Fire hazard</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure only performed in well-ventilated area that is free from sources of ignition</li> <li>• Protective clothing, solvent-proof neoprene or nitrile gloves, safety glasses, vapor-protective respirator</li> </ul>
Hand or machine sanding	<ul style="list-style-type: none"> <li>• Inhalation of sanding dust</li> <li>• Eye &amp; skin contact with sanding dust</li> <li>• Injury caused by vibration</li> </ul>	<ul style="list-style-type: none"> <li>• Protective clothing, gloves, safety glasses, dust-protective respirator</li> <li>• If you develop tingling or numbness in the fingers, stop sanding and exercise fingers</li> </ul>
Mixing & application of two-pack polyester filler	<ul style="list-style-type: none"> <li>• Inhalation of solvent &amp; styrene vapors</li> <li>• Eye &amp; skin contact with peroxide activator &amp; stopper</li> <li>• Fire hazard</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure only performed in well-ventilated area that is free from sources of ignition</li> <li>• Protective clothing, solvent-proof neoprene or nitrile gloves, safety glasses, vapor-protective respirator</li> </ul>



# Safety

Operation	Potential Harm	Action
Primer application (Spraying)	<ul style="list-style-type: none"> <li>• Inhalation of spray mist &amp; vapors</li> <li>• Eye &amp; skin contact</li> <li>• Fire hazard</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure only performed in well-ventilated area that is free from sources of ignition and is designated for spraying (e.g. spray booth)</li> <li>• Protective clothing, solvent-proof neoprene or nitrile gloves, safety glasses, air-fed mask</li> </ul>
Primer application (Roller application)	<ul style="list-style-type: none"> <li>• Inhalation of vapors</li> <li>• Eye &amp; skin contact</li> <li>• Fire hazard</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure only performed in well-ventilated area that is free from sources of ignition</li> <li>• Protective clothing, solvent-proof neoprene or nitrile gloves, safety glasses, vapor-protective respirator</li> </ul>
De-masking	<ul style="list-style-type: none"> <li>• Skin contact with not fully cured paint components</li> </ul>	<ul style="list-style-type: none"> <li>• Protective clothing, neoprene or nitrile gloves, safety glasses</li> </ul>
Paint mixing	<ul style="list-style-type: none"> <li>• Inhalation of solvent vapors</li> <li>• Eye &amp; skin contact</li> <li>• Fire hazard</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure only performed in well-ventilated area that is free from sources of ignition</li> <li>• Protective clothing, solvent-proof neoprene or nitrile gloves, safety glasses or goggles</li> </ul>
Color application	<ul style="list-style-type: none"> <li>• Inhalation of solvent vapors</li> <li>• Eye &amp; skin contact</li> <li>• Fire hazard</li> </ul>	<ul style="list-style-type: none"> <li>• Perform in spray booth or designated area</li> <li>• Protective clothing, solvent-proof neoprene or nitrile gloves, safety glasses, air-fed mask</li> </ul>
Polishing	<ul style="list-style-type: none"> <li>• Inhalation of dust</li> <li>• Eye contact with debris</li> </ul>	<ul style="list-style-type: none"> <li>• Protective clothing, gloves, safety glasses</li> </ul>
Spray gun cleaning	<ul style="list-style-type: none"> <li>• Inhalation of solvent vapors</li> <li>• Eye &amp; skin contact with cleaning solvents</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure only performed in well-ventilated area that is free from sources of ignition</li> <li>• Protective clothing, solvent-proof neoprene or nitrile gloves, safety glasses, vapor-protective respirator</li> </ul>
Use of aerosol cans	<ul style="list-style-type: none"> <li>• Inhalation of solvent vapors</li> <li>• Eye &amp; skin contact</li> <li>• Fire hazard</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure only performed in well-ventilated area that is free from sources of ignition</li> <li>• Protective clothing, solvent-proof neoprene or nitrile gloves, safety glasses, vapor-protective respirator</li> </ul>
Waste disposal	<ul style="list-style-type: none"> <li>• Chemical exposure</li> <li>• Fire hazard</li> <li>• Environmental damage</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure waste is disposed in compliance with local regulation</li> <li>• Neutralize isocyanate residues before disposal</li> <li>• Drain containers containing small residues of paint</li> <li>• Protective clothing, gloves &amp; safety glasses or goggles</li> </ul>



# Health Hazards

Matthews manufactures a wide variety of coatings. There are many raw materials or ingredients used in coatings and paint formulations including isocyanates and heavy metals. Each ingredient has a specific purpose for being used in the formulation.

Before you use a coatings product, read the entire product label and Safety Data Sheet (SDS). This way, you will know what you are working with and how to safely handle the product.

Use this information along with Matthew's Technical Data Sheets (TDS). There are publications on certain types of isocyanates and heavy metals which provide more details than this booklet. To request such information, contact your Matthews representative or distributor.

### Disclaimer regarding information provided by PPG:

The "Health Hazards" section is intended to provide INFORMATION for review by PPG's customers. In providing this information, PPG makes no separate or additional warranties, express or implied, and assumes no liability or responsibility arising out of its use. It is the responsibility of each customer, RE-SELLER and END-USER of PPG's products to independently ascertain that their practices are legal, appropriate and constitute sound product stewardship. Approaches to different issues may vary depending on individual circumstances. This information is not INTENDED to define or create legal rights or obligations. It is the responsibility of each customer, RE-SELLER AND END-USER to comply with federal, state and local laws.

## Isocyanates:

Questions & Answers about safely using coatings containing isocyanates:

### Q1. What are isocyanates?

A. Isocyanates are compounds containing one or more  $-N=C=O$  groups. These groups react with compounds containing alcohol (hydroxyl, OH) groups to produce polyurethane polymers, which are components of polyurethane foams, thermoplastic elastomers, spandex fibers, and polyurethane paints.<sup>1</sup> The term "isocyanates" herein will refer to the broad range of isocyanate products, including diisocyanates, prepolymers, and polymeric isocyanates.

### Q2. Why are isocyanates used in paint?

A. Isocyanates are used in paints because they provide a cross-linking mechanism (chemical bond) that is unique from other coatings. As a result of these chemical bonds, isocyanates help create more durable coatings with outstanding aesthetic properties. Isocyanate-containing coatings provide films that cure quickly at low temperatures. They also have excellent application properties, producing smooth films and high gloss coatings.

### Q3. Can isocyanates be used safely?

A. Yes. Always consult the Matthews product SDS and label for proper handling instructions. If you follow the recommended procedures for handling the product and controlling isocyanate exposure, isocyanates can be used safely.

Isocyanates can be used safely, if the appropriate precautions are followed.



Protecting yourself will prevent overexposure which can lead to sensitization.

## Q4. What are the major human health effects of overexposure to isocyanate products?

- A. Overexposure to isocyanate products can cause skin, eye, nose, throat, and lung irritation. It can also lead to skin or respiratory tract sensitization. A third effect for which there is some evidence is a chronic (long-term) loss of lung function. Refer to the product SDS for a more complete list of potential health effects and symptoms.

## Q5. What is sensitization?

- A. Sensitization is the body's allergy-like response to a substance which has been inhaled or touched by a person. Sensitization may result from a large single overexposure or from repeated overexposures at lower levels. Respiratory sensitization may be caused by inhalation of airborne isocyanates. Symptoms of respiratory sensitization may include asthma-like responses such as coughing, wheezing, tightness in the chest, shortness of breath, and headaches. Respiratory sensitization to isocyanates may be permanent. In addition, many isocyanates can cause sensitization to the skin. Skin sensitization may occur in response to skin contact. A skin sensitizer causes normal skin tissue to have an allergic reaction after repeated exposure. The skin sensitization reaction may include rash, itching, swelling, or hives. Onset of sensitization depends on the type of isocyanate, the dose, the route of exposure, and the susceptibility of the individual. The response may be immediate, delayed, or both. Once sensitized to an isocyanate, it may take only a small amount via inhalation or skin contact to trigger an allergy or asthma-like respiratory response or reddening of the skin. There is some evidence that sensitization to one type of isocyanate may trigger an asthma-like response when the person is exposed to a different type of isocyanate.

## Q6. Are there any warning signals to indicate that I am being overexposed?

- A. Isocyanates are difficult to detect by your senses alone. Occupational Exposure Limits (OEL) for isocyanates are typically below the concentration that your eyes or nose can detect. This means that isocyanates have "poor warning properties", and that even if you cannot sense isocyanates you may still be overexposed.

## Q7. Are there any other hazards related to isocyanate products?

- A. Consult the product SDS to review the potential health effects of other hazardous ingredients or the potential hazards of associated products. The Matthews product SDS and label provide all the information necessary to safely handle, use, and store the product.

## Q8. How can isocyanate exposures be controlled?

- A. Exhaust ventilation, enclosure of the operation, and personal protective equipment (PPE) are typical methods of isocyanate overexposure control. For example, during spray application, spray booths are used to help enclose the isocyanate operation and prevent exposure to other employees. PPE for the eyes, respiratory tract, and skin may include chemical splash goggles, positive pressure air-supplied respirators, impervious gloves, and protective clothing. Local exhaust or general dilution (adding more air to an area) ventilation is needed to remove decomposition products when welding or flame cutting on surfaces coated with isocyanates.

## Q9. How can I measure my potential exposure?

- A. Industrial hygiene air sampling is recommended to evaluate potential airborne exposure to isocyanates. The sampling and analytical methods selected should be based upon the particular isocyanate to be sampled and the application method. Be sure to share the SDS(s) with the laboratory performing the analyses. Surfaces can be checked for isocyanate contamination using commercially available surface wipe sampling kits.

## Q10. What should be done if there is a large spill of an isocyanate product?

- A. Follow the spill procedures for your work location and dispose of waste in accordance with your federal, state, provincial, and local environmental control regulations. Plan to have spill control/neutralization materials and employee protective equipment located so that it is readily available in emergencies. Non-essential personnel should be immediately evacuated from the contaminated area and all sources of ignition (flames, hot surfaces, and electrical, static or frictional sparks) should be eliminated. It is important to ventilate the area. Dike or contain the spilled material and try to control further spillage. Vermiculite, Fuller's Earth, or other absorbent materials can be used to absorb the spill. Containers of spilled material should not be sealed for 72 hours due to carbon dioxide pressure buildup which could cause the container to rupture. It is recommended that the product's SDS be reviewed for specific spill and handling instructions.

Spill Kits should always be available and employees should know how to use them.

## Q11. How do I decontaminate an area after a large spill?

- A. For most isocyanates, the following is a recommended decontamination solution: · 20% liquid nonionic surfactant, such as Dow Tergitol TMN-10, that mixes well with water · 80% water If the spill involves hydrogenated MDI (dicyclohexylmethane-4,4'-di-isocyanate), sometimes called HMDI, a combination degreaser/monoethanol amine/water solution is recommended.

## Q12. When is it safe to touch a newly cured part?

- A. Check with your Matthews representative to determine the proper curing time and other requirements for the Matthews product you are using. Isocyanate exposures are not expected from cured parts or films.

## Q13. Are there any hazards associated with sanding or machining isocyanate products?

- A. For cured parts or films, it is not expected that isocyanates would be generated in the dust produced during sanding or machining processes. It is still recommended that a respirator suitable for preventing inhalation of dust particulates formed during these operations be worn. Sanding or machining uncured isocyanate coatings poses a potentially larger hazard than with cured parts since it is possible that airborne isocyanates can be generated. Local exhaust ventilation, such as a vacuum sander, is another control measure that can be used to minimize potential exposure to airborne contaminants. PPE should also be used to prevent skin and respiratory tract exposure to isocyanates when handling or machining uncured isocyanate products.

## Q14. What types of hazardous substances can develop during heating, flame cutting, or welding substrates that have been coated with isocyanate products?

- A. Flame cutting, brazing, welding, or fire conditions are situations that generate high temperatures which could result in thermal decomposition of the coating. Fumes, gases, and vapors that are generated by these processes may include, but are not limited to, carbon monoxide, oxides of nitrogen, traces of hydrogen cyanide, and free isocyanate. Refer to the product SDS for other possible hazardous decomposition products. The nature of the fumes, gases, vapors, or particulates may vary depending on the type of process being used to weld or cut, the nature of the base metal, and the type of coating system. Removing the coating before high-temperature processing will reduce the potential exposure to isocyanate-containing fumes and vapors. Ventilation (local or general area) is needed to remove decomposition products during these operations.

## Reference List

1. US Department of Labor: Occupational Safety & Health Administration. <http://www.osha-slc.gov/SLTC/isocyanates/>. (Accessed: June 2003)
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3. Desmodur N: Hexamethylene Diisocyanate Based Polyisocyanates, Health & Safety Information; Bayer: Pittsburgh, 1999; p4.
4. Meyer, H. E.; Blocked Isocyanates: Questions and Answers About Use and Handling; Bayer: Pittsburgh, 1993.
5. Isocyanates: Questions and Answers About Use and Handling in Coatings Applications; Bayer: Pittsburgh, 2002.

## Disclaimer

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## Heavy Metals (Hexavalent Chromium, Lead, Nickel, Cadmium, Manganese, Selenium):

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There are regulations in the U.S. (OSHA standards) and other countries that are designed to limit exposures to specific heavy metals due to environmental, health and/or safety concerns. These standards set Permissible Exposure Limits (PEL) for the workplace. Managers of coatings operations have the responsibility to be familiar with these regulations and assess how they may affect their employees and their business. Compliance activities may include: workplace monitoring, medical surveillance, Personal Protective Equipment (PPE) including respiratory protection, hygiene practices, housekeeping, hazard communication training, establishment of regulated areas and engineering controls.

Questions & Answers about safely using coatings containing heavy metals:

### Q1. What is hexavalent chromium?

- A. Hexavalent Chromium is a toxic form of the element chromium. Hexavalent Chromium is man-made and widely used in many different industries.

Appropriate precautions should always be taken when dealing with products containing Heavy Metals.



**Q2. What are the sources of hexavalent chromium and other heavy metals? (Lead, Cadmium, Nickel, Chromium, Manganese and Selenium)**

- A. Some major sources are:
- Chromate pigments in dyes, paints, inks and plastics.
  - Added as anti-corrosive agents to paints, primers and other surface coatings.
  - Chrome plating by depositing chromium metal onto an item's surface using a solution of chromic acid.
  - Particles released during smelting of ferro-chromium ore.
  - Fumes from welding stainless steel or nonferrous chromium alloys.
  - Impurity as present in Portland cement.

**Q3. How can hexavalent chromium and other heavy metals be harmful?**

- A. Workplace exposure/overexposure may cause the following health effects:
- Lung cancer in workers who breathe airborne particles
  - Irritation or damage to the nose, throat and lungs if heavy metal particles are breathed at high levels
  - Irritation or damage to the eyes and skin if chromium contacts these organs in high concentrations

**Q4. How can hexavalent chromium affect the nose, throat and lungs?**

- A. Breathing in high levels can cause irritation to the nose and throat. Symptoms may include runny nose, sneezing, coughing, itching and burning sensation. Repeated or prolonged exposure can cause sores to develop in the nose. If the damage is severe, the nasal septum (wall separating the nasal passage) develops a hole or perforation.

**Q5. How can hexavalent chromium affect the skin?**

- A. Some employees can develop an allergic skin reaction, called allergic contact dermatitis. This occurs when handling liquid or solids containing hexavalent chromium. Once an employee becomes allergic, brief skin contact causes swelling and a red, itchy rash that becomes crusty and thickened with prolonged exposure. Allergic contact dermatitis is long lasting and more severe with repeated skin contact.

**Q6. How can one be exposed to hexavalent chromium and other heavy metals?**

- A. One can inhale airborne particles as a dust, fume or mist while:
- Producing chromate/lead pigments and powders, chromic acid, chromium catalysts, dyes and coatings
  - Working near chrome electroplating
  - Welding and hot working stainless steel, high chrome alloys and chrome-coated metal
  - Applying and removing chromate/heavy metal containing paints and other surface coatings

## Q7. How can one be protected from hexavalent chromium and other heavy metals?

- A. OSHA has taken steps to protect employees from health hazards caused by hexavalent chromium. The OSHA standard requires employers to:
- Limit eight-hour time-weighted average exposure in the workplace to 5 micrograms or less per cubic meter of air
  - Perform periodic monitoring at least every 6 months if initial monitoring shows exposure at or above the action level (2.5 micrograms per cubic meter of air calculated as an 8 hour time weighted average)
  - Provide appropriate personal protective clothing and equipment when there is likely to be a hazard present for exposure
  - Implement good personal hygiene and housekeeping practices to prevent exposure
  - Prohibit employee rotation as a method to achieve compliance with exposure limit (PEL)
  - Provide respiratory protection as specified in the standard
  - Make available medical examinations to employees within 30 days of initial assignment, annually, to those exposed in an emergency situation, to those who experience signs or symptoms of adverse health effects associated with exposure, to those who are or may be exposed at or above the action level for 30 or more days a year, and at termination of employment.
- Visit [www.osha.gov](http://www.osha.gov) for more detailed information.

### For additional information:

The Matthews Paint website; [www.matthewspaint.com](http://www.matthewspaint.com) > Fabricators/ Distributors > EPA 6H Rule offers a list of Products Containing Metals. These are Matthews products that contain intentionally-added lead, hexavalent chromium, cadmium and/or selenium, coatings regulated under RoHS (Direction on the Use of Certain Hazardous Substances). Contact Matthew Paint or your local Matthews distributor for replacement products that do not contain these substances.

Know where to find additional information.

# Health Precautions – Employee Protection

Product containers should be securely closed, properly labeled, and safely stored when not in use.

## General Precautions:

### Know the product that you are using:

Before handling Matthews products, read and understand the information on the label, Technical Data Sheet (TDS) and product Safety Data Sheet (SDS). The product label and SDS contain all of the information necessary for the safe handling, storage and use of Matthews products including health and physical hazards specific to each product.

### Housekeeping:

High standards of housekeeping are the basis of creating and maintaining a safe and healthy working environment. Strict attention to good housekeeping is therefore essential.

- Avoid contaminating work surfaces with overspray, sanding dust or spills
- Clean spills immediately
  - Make sure there are no ignition sources nearby
  - Use proper Personal Protective Equipment
  - Contain and collect large spillage with non-combustible or absorbent material (sand, earth, kitty litter, etc.). Do NOT allow spillage to enter drains. Exclude sources of ignition and ventilate the area.
  - After absorption, put spill clean-up material in hazardous trash for disposal.
- Maintain high standards of personal hygiene, e.g. operators should wash their hands before eating, drinking, and using the lavatory at the end of your shift.

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### Mixing and Handling:

Used or partially used containers should be securely closed, properly labeled and returned to the storage area as soon as possible after use.

### Application:

- Operators should be protected against the inhalation of dusts, vapors and spray mists at all stages in the process by the provision of good standards of general ventilation, where necessary to keep atmospheric concentrations below dangerous levels. Local exhaust ventilation should be provided at all points where emissions to the workroom atmosphere may occur.
- Spraying must be confined to spray booths or enclosures fitted with mechanical exhaust ventilation.
- The mechanical exhaust ventilation systems should be kept running for a short period after spraying has stopped to ensure the complete removal of vapors and spray mists.



## Personal Protective Equipment (PPE):

Observe all PPE signs in the facility. Appropriate PPE in the work areas include safety glasses with side shields and fully enclosed leather shoes. Additional PPE will be required in specific areas and for specific tasks.

### Eye/Face Protection:

- Wear safety glasses when handling wet paint
- Wear goggles when cleaning equipment
- A full-face respirator, or air-supplied hood, will protect the eyes and face from spray mist and solvent vapors

### Skin Protection:

- Hands: use gloves that are substantial nitrile, neoprene or butyl rubber materials are highly preferred with 8 mil or similar being recommended. The use of latex gloves is not recommended.
- Body: wear appropriate anti-static paint suits to protect clothing and prevent skin contact.
- In the event of skin contact, wash with soap and water immediately to remove the product before it has a chance to act on the skin. If waterless hand cleaner is present, use it and then, again, use soap and water. Solvents and thinners should NOT be used!

### Respiratory Protection:

- Sanding: a particulate or dust mask must be worn when sanding
- Spraying:
  - Booth ventilation must be as designed, maintained, and operated correctly to ensure proper evacuation of overspray and solvent vapor
  - Use the correct respirator that has been properly fitted: It is a best practice to use a full-face air-supplied respirator for all spraying operations as this prevents the inhalation of spray mists. An air-fed half-mask used in combination with safety glasses is also acceptable.

### Types of Respirators:

#### Supplied Fresh Air Respirators:

A positive-pressure, supplied-air respirator or an air-supplied hood, approved under NIOSH/MSHA TC-19C, should be used when spraying isocyanate/heavy metal coatings. This respirator may also need to be used when performing hot work (welding, cutting, or brazing) on surfaces coated with isocyanate/heavy metals. Wear the respirator for the whole time of spraying and until all vapors and mists are gone. Matthews recommends the use of Supplied Fresh Air Respirators for spray applications!

#### Powered Air Purifying Respirators (PAPR):

These are motorized systems that use a filter to clean ambient air before it is delivered to the breathing zone of the user. Typically they include a blower, battery, headpiece and breathing tube. In low concentration areas, determined by industrial sampling and proper evaluation of air quality, the PAPR systems have proven to be an adequate source of protection.

#### Non-Supplied Air Respirators:

Matthews does NOT recommend air purifying respirator (APR) use with isocyanate/heavy metal containing coatings. These respirators use a cartridge filter and no airline.

Refer to Safety Data Sheets (SDS) to know which type of respirator you should be using.



# Safety

## Recommended PPE for basic shop operations:

Operation	Eyes	Skin	Respiratory
Sanding		 	
Cleaning		 	
Mixing / Setup		 	
Spraying		 	

## Electrical - Bonding and Grounding:

Static electricity is generated when liquids such as paints, resins, and solvents move in contact with other materials. This occurs with movement in pipes, mixing, pouring, pumping, filtering, filling and agitating. In some cases, especially with non-polar organic solvents, static electricity may even accumulate in the liquid. If the accumulation is sufficient, a static spark may occur. If the spark occurs in the presence of a flammable vapor-air mixture, an ignition and fire may result.

Flammable liquid transfers of more than one gallon (five liters) should be bonded or grounded to control static electricity.

Controls need to be practiced by all associates handling flammable and/or combustible liquids to eliminate the potential for static build-up and discharge. These controls are commonly referred to as BONDING and GROUNDING.

### Bonding:

The connection of two (2) or more metal objects together by means of a conductor (bond wire).

### Grounding:

The connection of one (1) or more metal objects to building or earth ground by means of a conductor (ground wire).

### General Guidelines:

1. For any flammable liquid transfers of more than one gallon (five liters), always use bonding and grounding techniques to control static electricity. Bonding assures equal charge between two objects or points, while grounding assures any charges are dissipated to the ground.
2. Always use clamps with two sharp points that are clean and in good condition. Do not use alligator clamps. Alligator clamps are all-purpose in nature and may not provide the best contact needed on a rim-type container.
3. Connections should be made before containers are opened. Always make sure to maintain good metal-to-metal contact.
4. Stretch wrap must be removed in a solvent-free area prior to moving material to the mixing or spray areas. Stretch wrap may cause static electricity.

## Fire and Explosion

Volatile solvents make Matthews products flammable and/or combustible. Work areas must be clean and properly designed for use and storage of flammable liquids. Paint and solvent products should be kept away from all sources of ignition including heat, sparks, flame, motors, burners, heaters, pilot lights, welding and static electricity generated by liquid transfer. Explosion-proof equipment, proper fire extinguishers and other extinguishing devices are prudent precautions to be taken in all operations.

### Sources of Ignition:

- All possible sources of ignition should be strictly controlled including cell phones.
- Smoking should be prohibited in all areas where paint is stored, handled or used.
- Matches, lighters and cell phones should not be taken into any workroom.
- Electrical apparatus should be to a recognized standard.
- Vehicle engines should not be switched on or allowed to run where a flammable concentration of vapors may reasonably be expected to be present.
- Static electricity may be generated from activities in workrooms, e.g. from handling flammable liquids or from the wearing of unsuitable clothing and footwear. Under certain conditions, static charges may accumulate to dangerous levels giving rise to the risk of explosion.

To minimize the static risk, the following precautions should be observed where flammable liquids are handled or used:

- Dispensing equipment must be properly bonded and grounded.
- Paint/spray suits should be anti-static.
- Floors should be conductive and paint deposits regularly removed.
- Operators mixing, decanting or transferring flammable liquids should wear non-insulating footwear.
- Working surfaces should be constructed from conductive materials.

### Fire Precautions:

- Means of escape should be adequate, clearly identified and kept free from obstruction at all times. Fire escape doors should be kept unlocked while the premises are occupied.
- Adequate fire prevention and firefighting equipment should be provided and maintained in all areas where industrial finishing products are used, handled, and stored. Fixed automatic sprinkler systems may be appropriate to provide fire protection for some installations.

### Environmental:

- Waste materials must be treated as a fire hazard.
- Empty containers can retain vapors of solvents present in the original product and are therefore hazardous with respect to fire, explosion, and noxious vapor risks. Storage in a non-combustible, clearly labeled container with a secure lid is recommended prior to disposal.

All possible sources of ignition should be strictly controlled including cell phones.

Smoking should be prohibited in all areas where paint is stored, handled or used.

# Globally Harmonized System (GHS) of Classification and Labeling of Chemicals

The United States Occupational Safety and Health Administration (OSHA), on March 26, 2012, published the final rule on the Hazard Communication Standard (HAZCOM 2012) that will adopt the Globally Harmonized System of Classification and Labeling for Chemicals (GHS). The legislation became effective sixty (60) days after publication and provides several transition dates for employee training and revised safety data sheets and labels. In addition to the hazards defined in the GHS, OSHA has included requirements for disclosing additional hazards known about chemicals under a "hazards not otherwise classified" section. OSHA's new standard will classify chemicals according to their health and physical hazards and establish consistent labels and safety data sheets for all chemicals made in the United States or imported from abroad. During the transition period, chemical manufacturers, importers, distributors and employers may comply with either the existing standard, the final standard (HAZCOM 2012) or both.

Visit <https://www.osha.gov/dsg/hazcom/hazcom-faq.html> for more information.

## GHS Pictograms

### Health Hazard

Carcinogens, respiratory sensitisers, reproductive toxicity, target organ toxicity, germ cell mutagens



### Flame

Flammable gases, liquids, & solids; self-reactives; pyrophorics



### Exclamation Mark

Irritant, dermal sensitiser, acute toxicity (harmful)



### Gas Cylinder

Compressed gases; liquefied gases; dissolved gases



### Corrosion

Skin corrosion; serious eye damage



### Explosing Bomb

Explosives, self-reactives, organic peroxides



### Flame Over Circle

Oxidisers gases, liquids and solids



### Environment

Aquatic toxicity



### Skull & Crossbones

Acute toxicity (severe)



## Safety Data Sheets (SDS)

Matthews has adopted the 16-section SDS based on the ANSI z.400 Standard (an industry consensus standard for SDS content). The format is compliant with requirements of the U.S. OSHA Hazard Communication Standard, Health Canada Workplace Hazardous Materials Information System (WHMIS), and Mexican NOM-018-STPS-2000. The following outlines what information is contained in each section.

Refer to Section 8 for Personal Protective Equipment (PPE) recommendations.

### Section 1 - Identification

- Product identifier
- Contact information for the manufacturing company
- Emergency phone numbers
- Recommended use
- Restrictions on use

### Section 2 - Hazard(s) Identification

- All hazards regarding the chemical
- Required label elements

### Section 3 - Composition/Information on Ingredients

- Information on chemical ingredients
- Trade secret claims

### Section 4 - First Aid Measures

- Important symptoms/effects, acute, delayed
- Required treatment

### Section 5 - Fire Fighting Measures

- Suitable extinguishing techniques and equipment
- Chemical hazards from fire

### Section 6 - Accidental Release Measures

- Emergency procedures
- Protective equipment
- Proper methods of containment and cleanup

### Section 7 - Handling and Storage

- Precautions to be taken during handling and storage
- Incompatibilities

### Section 8 - Exposure Controls & Personal Protection

- OSHA's Permissible Exposure Limits (PELs)
- Threshold Limit Values (TLVs)
- Appropriate engineering controls
- Personal Protective Equipment (PPE)

### Section 9 - Physical & Chemical Properties

- Lists the chemical's characteristics

### Section 10 - Stability and Reactivity

- Chemical's stability and possibility of hazardous reactions

### Section 11 - Toxicological Information

- Routes of exposure
- Related symptoms, acute and chronic effects
- Numerical measures of toxicity

### Section 12 - Ecological Information\*

### Section 13 - Disposal Considerations\*

### Section 14 - Transportation Information\*

### Section 15 - Regulatory Information\*

### Section 16 - Other Information

- Includes date of preparation or last revision

\*Note: Since other agencies regulate this information, OSHA will not be enforcing Sections 12 through 15 (29 CFR 1910.1200(g)(2)).

Employers must ensure that SDS are readily accessible to employees.

### How to get Matthews SDS Information

- Access SDS information at [MatthewsPaint.com](http://MatthewsPaint.com)
- Contact your Authorized Matthew Distributor
- Contact Matthews Customer Service at 800-323-6593



Proper Labeling of Intermix Colors

The Federal Occupational Safety and Health Administration's (OSHA) "Right to Know Law" requires the proper labeling of paint cans designed to correspond with the proper SDS information...

Anyone who intermixes paint products will be held accountable for the proper labeling of the container.

Be sure to use the proper label for each intermix formula. It is not just a "good idea" or a suggestion, it's the LAW!

- Matthews distributor can order intermix labels through Matthews online ordering system.
Anyone using a Matthews mixing system should contact their Matthews distributor for assistance in ordering, maintaining an inventory and using the correct intermix labels.

Examples of intermix labels:

MSDS label for SOA-1 paint product. Includes sections for 'PRECAUTIONS', 'CONTINGENCY MEASURES', 'FIRST AID', 'FIRE FIGHTING', 'HAZARD IDENTIFICATION', 'PHYSICAL AND CHEMICAL PROPERTIES', 'TOXICOLOGICAL INFORMATION', and 'ENVIRONMENTAL INFORMATION'.

MSDS label for SOA #1 paint product. Includes sections for 'PRECAUTIONS', 'CONTINGENCY MEASURES', 'FIRST AID', 'FIRE FIGHTING', 'HAZARD IDENTIFICATION', 'PHYSICAL AND CHEMICAL PROPERTIES', 'TOXICOLOGICAL INFORMATION', and 'ENVIRONMENTAL INFORMATION'.

MSDS label for SATIN MAP paint product. Includes sections for 'PRECAUTIONS', 'CONTINGENCY MEASURES', 'FIRST AID', 'FIRE FIGHTING', 'HAZARD IDENTIFICATION', 'PHYSICAL AND CHEMICAL PROPERTIES', 'TOXICOLOGICAL INFORMATION', and 'ENVIRONMENTAL INFORMATION'.

MSDS label for SATIN MAP paint product. Includes sections for 'PRECAUTIONS', 'CONTINGENCY MEASURES', 'FIRST AID', 'FIRE FIGHTING', 'HAZARD IDENTIFICATION', 'PHYSICAL AND CHEMICAL PROPERTIES', 'TOXICOLOGICAL INFORMATION', and 'ENVIRONMENTAL INFORMATION'.



## Waste Procedures

### What is Waste and how should it be handled?

- Information supplied in our SDS for coatings and cleaners can be used to define wastes generated for processes using these products. When disposing of wastes, it is essential to know what hazardous chemicals are contained in the waste and any flammable, corrosive and/or toxic natures that might exist. Federal, state and local regulations define the requirements for waste collection, transport and disposal. Only qualified, licensed waste transporters and disposal facilities should be used.
- Used booth filters would be contaminated with the same chemicals described in the SDS and should be handled appropriately. All wastes can be tested by certified environmental laboratories to determine the proper regulatory disposal requirements.
- Rags and wipes also can be contaminated with the same chemicals but rules vary by location. Dry, used wipes may be considered hazardous or non-hazardous depending on the listed composition of products they have been used to clean. However, saturated wipes, particularly those used with cleaning solvents, are frequently rated hazardous. In this situation, it is best to get a ruling from the local agency responsible for enforcing the hazardous waste program in your area (EPA and/or your state or local agency). Liquid waste can be flammable and must be counted as inventory.
- The U.S. EPA and most states exempt empty containers from the Resource Conservation and Recovery Act (RCRA) controls if they meet the definition of "empty" found in 40 CFR 261.7(b). According to 40 CFR 261.7(b), the EPA allows a container that once held a non-acute hazardous waste to be considered empty and NOT subject to hazardous waste regulation when all waste that can be removed has been removed using common practices such as pouring, pumping and aspirating. The regulation also specifies the following:
  - Individual containers less than or equal to 119 gallons - No more than one inch of residue can remain in the bottom or on the inner liner of the container representing no more than 3% (by weight) of the container's total capacity. Container examples include pint, quart and gallon cans, 55 gallon drums, etc.
  - Individual containers greater than 119 gallons - No more than 3% (by weight) of the container's total capacity can remain in the container.

However, the local interpretation of this rule can vary. When in doubt, consult with the local agency responsible for enforcing the hazardous waste program in your area.

Always check with local authorities before disposing of paint-contaminated waste in the landfill.

## TCLP Waste Characterization (Toxicity Characteristic Leaching Procedure)

Facilities that use paint coatings will generate waste streams that must be managed and disposed of following federal, state and local regulations. Waste streams including used booth filters must be handled properly. Regulations typically require that these waste streams be characterized as either hazardous or non-hazardous prior to disposal.

Waste streams including used booth filters must be handled properly.

If a waste stream is known to contain leachable/soluble heavy metal pigments/additives (e.g. leads, hexavalent chromium, cadmium, barium, selenium and mercury), specific methods of treatment and disposal may be required. The composition of these waste streams would likely be classified as hazardous waste due to its characteristic of toxicity, using the Toxicity Characteristic Leaching Procedure (TCLP), test Method 1311 (40 CFR 260.11). In addition, some waste streams are specifically identified as hazardous waste regardless of their characteristics. Reference should be made to the Resource Conservation and Recovery Act regulations located at 40 CFR 260 through 40 CFR 270 or applicable state regulations to determine whether a waste stream should be managed as hazardous waste. The generator of the waste stream is responsible for characterizing the waste. It is the generator's responsibility to consult appropriate local agencies to determine which wastes must be managed as hazardous.

# Facility Operating Requirements

In order to maintain a safe and productive facility operating within government specifications, managers must be aware of local, state and federal requirements and (when necessary) consult with those government bodies for licensing approvals. A manager of a refinish facility must consider a number of regulations which impact day-to-day operations and long-term growth plans, including:

### Permits:

- When considering building a facility or major renovation, before construction, building location, designs for the building, plumbing, electrical and mechanical department, building department or plan examiners' office to obtain building permits. Building permit approval will be based on nationally recognized building codes such as the International Building Code (IBC), National Fire Protection Association (NFPA) and local requirements. Permits are also the basis for periodic inspections during construction by local municipality building inspectors, including but not limited to fire department, plumbing, and electrical inspectors.
- The state or local environmental agency may require a "permit to build" or "permit to operate".
- Title V operating permits issued mostly by states or local authorities, are required for large sources and some smaller sources. Emissions monitoring, tracking, recordkeeping and regular certifications of compliance are common procedures specified in a Title V operating permit.
- State and local environmental agencies may require an air permit for a smaller emission source similar to a Title V permit or permit to operate. This permit may require periodic renewals. It is possible that an application for a change in the permit would be required if an increase in emissions is projected.
- The local fire department must be notified of the facility's intent to operate within their jurisdiction. This can be done independently or is often done by the local municipality's building department during the plan review process. The fire department will want to know the nature of the chemicals found in the products used in the operation, especially the flammability but also possibly corrosivity, reactivity and toxicity. The fire marshal will likely want to inspect the facility. Typically there are limits on the amount of flammables that can be stored within a facility. They may also provide requirements on fire protection equipment.

### Application Process Limits:

- Only the largest facilities can be described as major sources of hazardous air pollutant (HAP) emissions which fall under federal rules called NESHAPs (National Emission Standards for Hazardous Air Pollutants) found at 40 CFR Part 63 MMMM and 40 CFR Part 63 PPPP. The Federal EPA created the list of Hazardous Air Pollutants, chemicals that cause or may cause cancer or other serious health effects, such as reproductive or birth defects, or adverse environmental and ecological effects. To be a major source, these facilities must emit at least 10 tons per year of any single HAPs or 25 tons of mixed HAP. For these facilities, HAP limits on a lbs/gal coatings solids or lbs/lb coatings solids are specified with recordkeeping required for validation.
- At a minimum, all refinish and fleet operations (disregarding the size of the facility) must comply with the national rule for refinish coatings found at 40 CFR Parts 9 & 59. This regulation sets ready-to-spray VOC limits for coatings by the intended use definition. Many states have similar rules and some localities also have lower limits intended to reduce VOC emissions for coatings and cleaners. Rules may also impact content (heavy metals, exempt solvents...) and equipment requirements (spray booths, HVLP...).



- VOC and HAP documentation is frequently a reporting requirement of regulating agencies. On its VOC charts and Technical Data Sheets (TDS), Matthews supplies “as packaged” and “ready-to-spray” VOC information. This information is also available on MatthewsPaint.com or from your local Matthews distributor.
- SDS are available on MatthewsPaint.com or upon request from your local Matthew Paint Distributor. SDS contain hazardous ingredients, correct personal protective gear and address EH&S concerns.

Air permits may also define requirements related to booth filters. This may include inspection or replacement frequency and pressure drop requirements.

## Inspections

Local fire department and local municipality inspectors for building, electrical and plumbing may examine your facility - including spray booths, storage areas, emergency operation of your business. Maintaining these structures and support functions is an absolute necessity.

- The state and/or local agencies may review your permits, emissions and waste generation protocols.
- OSHA can inspect with respect to worker safety including hazardous chemicals exposures, training, housekeeping and right to know issues.

It is in every facility’s best interest to run a safe and compliant operation. This summary is not intended to be all inclusive as protocols vary widely among localities. The key for an efficient operation is to maintain lines of communication with regulating authorities, to know where to find regulations that impact your operations and to understand them. The final rule as always... “When in doubt, consult with the appropriate authorities”.

### Health, Safety and Environmental Awareness

The materials used in Matthews products have been specially selected for their contribution to the high performance and long-life characteristics of the coating: gloss, toughness, fast dry, etc. This high performance is achieved through the use of ingredients which may be hazardous if used improperly. Specific warnings are applied to each Matthews product to alert the user to these hazards. Appropriate attention to these precautions are essential to the proper use of the coating. Read all labels and instructions carefully and fully understand their content.





VOC



# What Does VOC Stand For?

## What is VOC?

- Volatile Organic Compound
- VOCs are released during application of industrial paint products and go into the atmosphere where they react with sunlight, auto emissions, and dust to cause pollutants known as Photochemical Smog.
- Overspray contain VOCs
- In short, VOCs contribute to air pollution!

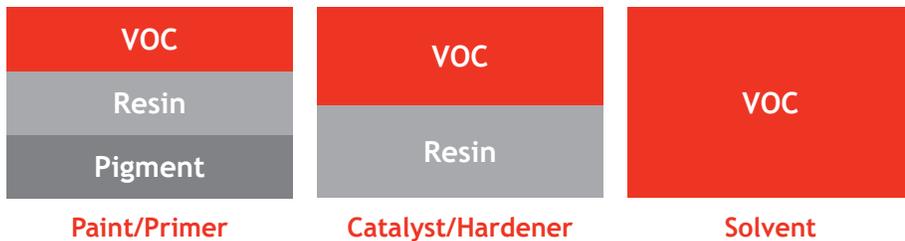
VOCs are released during application of industrial paint products and go into the atmosphere where they react with sunlight, auto emissions, and dust to cause pollutants known as Photochemical Smog.



VOCs can be found in overspray and drying paint film.

# Where is VOC Found?

VOCs are found in paints, primer, catalysts/hardeners and solvents.



Does not necessarily represent actual percentage of content. Merely a graphical representation.



## Why VOC is Regulated

VOCs are regulated by federal and state agencies such as the EPA and SCAQMD (South Coast Air Quality Management District) in Southern California. Several separate agencies may have different regulations in a state. The regulations are designed to limit the amount of VOC that is put into the air because most evaporative solvents contribute to air pollution.



## How to Reduce VOC

There are several ways to reduce the amount of VOC:

- Use Matthews Low VOC or Ultra Low VOC paint systems.
- Use Matthews Low VOC or Exempt reducers when possible (refer to product TDS for reducer options).
- Use HVLP (High-Volume, Low Pressure) or electrostatic spray equipment. This equipment consumes less paint, which in turn uses less solvent (VOC).

Regulations in your area may require the use of Low VOC Coatings. If so, Matthews has those coatings available.





# Chemistry



# The Composition of Paint

Generally, paint products are composed of four key ingredients:

### Liquid Resin

Liquid resin is the primary chemical building block for all paint products and determines its overall performance capabilities. The resin determines the handling, curing, and usage characteristics of any paint product as well as its durability. Matthews topcoat paint is primarily based on high quality acrylic polyurethane resins.

Liquid resin is the primary chemical building block for all paint products and determines its overall performance capabilities.

### Pigment

Generally a heavy powdered substance that provides the actual “color” and opacity of undercoats or topcoat colors. Metallic flakes and pearls are generally considered pigments as well. Clearcoats have no pigment in their composition.

### Solvents

Solvents provide “liquidity” to paint products and color. They also help control drying and curing characteristics. We are not referencing “thinners” added by the technician in mix ratios but the actual solvents built into paint products at our plants.

### Additives

These components do a variety of important jobs for specific paint products. Some of these jobs include providing anti-gelling, anti-blister, UV screeners, aroma, filling capability, or other special performance characteristics.

## Additional Paint Ingredients

Most paint products are not sold in their ready-to-spray (RTS) form. Ingredients, such as catalysts and reducers, are usually required. Additional “ancillary” products, often times optional, may be added to alter performance or appearance characteristics.

### Catalysts/Hardeners

Reactive agents used to chemically “cure” 2K (two component) paint products. Catalysts react with paint resins to molecularly crosslink the product. This helps provide the long- lasting durability of a high quality paint.

### Thinners/Solvents/Reducers

Solvents used to “thin” or reduce the product’s viscosity and thus make them “sprayable.” Matthews uses high quality reducers for use in different temperature conditions.

### Ancillaries

Some ancillaries, such as accelerators, can be added in specific quantities to certain products to speed up dry/cure times. Other ancillaries, such as flatteners or suede additive, are used to provide a specific appearance.



# Basic Types of Paint Chemistries

Most paint products will fall into one of two categories: Thermoplastic and Thermoset.

### Thermoplastic

Paint chemistry, such as lacquer, that dries by the release of solvent. There is no chemical crosslink that occurs. Can be reflowed by heat or solvent.

### Thermoset

Cures by chemical crosslink either by oxidation and/or the introduction of a catalyst. Once cured, thermoset coatings cannot be completely reflowed by heat or solvent since the molecules have permanently bonded together.

Crosslink is a term that describes the reaction that takes place in some coatings in which the molecules chemically bond together.

# Families of Paint Products

### Acrylic Polyurethane

An acrylic resin with a urethane crosslink, excellent chemical resistance, outstanding color and gloss retention.

### Acrylic

Main component of some resins, decent chemical resistance, excellent weathering.

### Enamels

General term for a thermoset hard finish usually curing by oxidation. May use a chemical catalyst as well.

### Alkyds

Used on outdoor advertising boards, general purpose resin.

### Lacquers

Non-crosslinking, thermoplastic coating which dries by solvent evaporation. Poor graffiti resistance.

### Epoxies

Good chemical resistance, terrible weathering which precludes its use as a long lasting topcoat. Mostly used as a primer. 2K amine crosslink.

### Polyesters

Good chemical resistance.

Matthews acrylic polyurethane has exceptional chemical resistance, outstanding color and gloss retention.



# Standard Conditions

Standard conditions are the temperature and humidity under which a paint product’s dry time, cure time, pot life, and all general performance characteristics are determined. This information can be found on all Matthews Technical Data Sheets (TDS):

**Temperature**

70°F / 21°C

**Relative Humidity**

50%

## Shop Temperature: The 15° Rule

Since shop conditions vary, the product must be adjusted by changing the reducer, the catalyst, or a combination of the two. The 15° Rule is a simple way to determine when adjustments should be made.

**The 15° Rule states:**

- For every 15° F increase in temperature above standard conditions, a paint product’s dry time and pot life may be cut in half.
- For every 15° F decrease in temperature below standard conditions, a paint product’s dry time and pot life may be doubled.

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Example Product XYZ		
Temperature	Pot Life	Dry Time
100°F / 38°C	1 hour	2 hours
85°F / 29°C	2 hours	4 hours
70°F / 21°C	4 hours	8 hours
<b>55°F / 13°C</b>	8 hours	16 hours

**Caution! Minimum Temperature of 60°F / 16°C Must be Maintained!**

All 2-component crosslinking slows significantly at temperatures below 60°F or 16°C. Never spray or subject freshly painted coatings to these conditions or loss of gloss, decreased durability and improper curing can occur.

**Flash/Tack Times**

Flash Time is a general definition of the primary amount of time required for the majority of thinners or solvents in a coat of paint to evaporate after being sprayed on a surface. Flash time should be maintained by choosing the appropriate reducer for the conditions. Allowing for proper flash time will help avoid trapping solvent in the paint film. The need for flash times would not exist if all products required only one coat to obtain the recommended film build. This is not always the case and the use of proper flash time is essential toward achieving the recommended film builds and performance of some products.



The following factors determine the length of time it takes a product to flash off:

- The speed and amount of solvent in a ready-to-spray product.
- The atomization of the product during application, the type of film build per coat, the temperature at the time of product application.
- The amount of ventilation present at the time of product application.

Another way to refer to Flash Time is "Tack Time". The surface becomes tacky or slightly dry to the touch and is generally ready for the next coat. If the "finger tip test" shows evidence of wet paint on the glove when the surface is touched, wait until the surface becomes tacky before applying the second coat.

## Other Factors to Consider

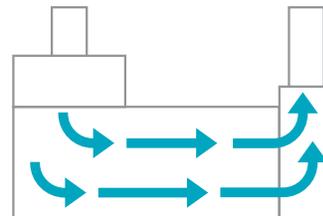
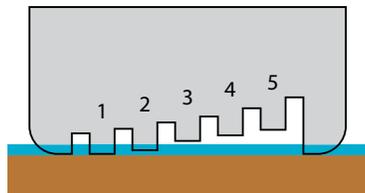
### Time

Liquid materials, such as primer, paint, or clear require time to dry (solvent evaporation) and cure (crosslinking) before becoming a solid film.



### Temperature

The higher the temperature, the faster the dry and cure stages will be completed. The lower the temperature, the slower the dry and cure stages will progress.



### Thickness

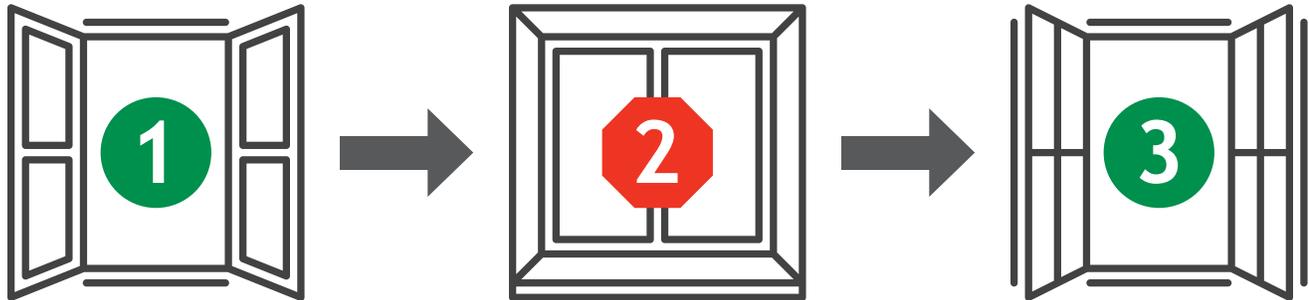
Paint products that have been applied too thin can dry too quickly. Paint products that have been applied too thick can take too long to dry and cure. Refer to Matthews Technical Data Sheets (TDS) for recommended wet and dry film thicknesses.

### Airflow

Airflow in the spray booth should be adequate to remove overspray during application and to allow solvents to escape after application. Insufficient airflow can result slower dry times, solvent being trapped in the paint film, and excessive overspray landing back on the surface. Too much airflow can the surface to "skin" over, also trapping solvent in the paint film and slowing down the drying/curing process.

# The Window Rule

This rule has three parts, applies to thermoset (2K) coatings, and the “windows” open in the order explained.



## Window #1: Opportunity

Chemically soft enough to accept a subsequent coat of the same product or a compatible product.

## Window #2: Sensitivity

Not chemically soft enough to accept nor hard enough to resist possible wrinkling that could be caused by a subsequent coating.

## Window #3: Stability

Chemically hard enough to resist possible wrinkling that could be caused by a subsequent coating.

The time necessary for each product to move from one window to the next will vary based on many factors; the product being sprayed, reducer/catalyst selection, use of accelerator, film build, and temperature, just to name a few.

# Fundamentals



# The Golden Rules of Success

- 1: Properly Prepare the Substrate
- 2: Select the Right Products
- 3: Use the Right Spray Equipment
- 4: Follow Technical Data Sheet (TDS) Instructions
- 5: Choose Appropriate Reducer and Catalyst
- 6: Maintain Temperature and Airflow in Spray Booth

## Rule #1: Properly Prepare the Substrate

- Make sure substrate is sound (free of rust, old or thermoplastic paint finishes, etc.)
- Clean with appropriate Matthews cleaner
- Follow Matthews Substrate Guide for specific sanding and preparation recommendations

### Following these guidelines will:

- Help ensure that contaminants have been removed from the surface
- Prevent sandpaper from clogging too quickly
- Reduce the chance of fish-eyes
- Help prevent adhesion failure to the substrate

## Rule #2: Select the Right Products

- Use only Matthews products
- Select an appropriate primer for the substrate to be painted
- Select a topcoat based on the project specifications
- If clearcoat is required, select one that meets project specifications
- Select a gloss level of topcoat or clear based on project specifications:
  - **Matte:** 0-8 gloss units
  - **Satin:** 15-30 gloss units
  - **Semi:** 40-60 gloss units
  - **Full:** 80+ gloss units

### Following these guidelines will:

- Ensure adhesion
- Enhance durability
- Provide compatibility between products

Properly prepared surfaces must be both sound and chemically clean. These two factors are essential in order for the applied products to obtain their expected adhesion and durability.

Gloss Units (GU) are measured with a 60° gloss meter.



## Rule #3: Use the Right Spray Equipment

- Ensure that an adequate amount of clean, dry air is being delivered to the spray gun
- Use correct fluid tip size for product (refer to TDS)
- Set the correct air pressure based on spray gun manufacturer's recommendations
- Perform a Spray Pattern Check to confirm spray gun performance and adjustment

### Following these guidelines will:

- Prevent contamination from the air compressor
- Lead to proper film build, even drying, metallic orientation, and uniform appearance

## Rule #4: Follow Technical Data Sheet (TDS) Instructions

- Use recommended compatible products (catalyst, reducers, etc.)
- Mix according to TDS recommendation
- Follow application instructions
- Understand product dry times

### Following these guidelines will:

- Lead to proper film build
- Ensure adhesion
- Enhance durability
- Provide compatibility between products
- Deliver desired appearance

The problems associated with improper flash times (generally, not waiting long enough between coats) are due to the trapping of solvent within the paint film.

## Rule #5: Choose Appropriate Reducer and Catalyst

- Temperature in the paint booth is important, but not the only factor
- Larger jobs will require a hotter temperature (slower evaporating) reducer
- High humidity will also require a hotter temperature reducer
- Some products may have options for slower catalysts or retarders (refer to TDS)

### Following these guidelines will:

- Avoid trapping solvent in the paint film
- Aid in application for large jobs
- Ensure performance in hot or extreme conditions

It can't be stressed enough that proper solvent and catalyst selection for the temperature of the spray area can make or break a job.

## Rule #6: Maintain Temperature and Airflow in Spray Booth

- Maintain a minimum temperature of 60°F or 16°C during the initial drying/curing stages
- Maintain adequate air flow during the drying process

### Following these guidelines will:

- Ensure proper crosslinking of two-component products
- Evacuate overspray and solvent during the painting and drying process

If the sprayed unit is left in an enclosed area with trapped solvent vapor or fumes, the film will not be allowed to compact itself and "set". Lack of free flowing air can interfere with the gloss and overall appearance of the finished product.



# Equipment



# Equipment Information

## Air Supply, Pipe Sizes and Air Pressure Drop

### Shop Air Supply

Today's spray guns, specifically High Volume Low Pressure (HVLP) spray guns, require more air volume (CFM) than air pressure (PSI). Due to this fact, the air supply in a paint department is one of the most important systems a shop can consider. There is too much to discuss about the air supply in a paint shop to put in this book. Detailed information is available from suppliers of air compressors, air dryers, filters, and spray gun manufacturers.

We can make a few suggestions to get the process of equipping or remodeling an air supply system started. The best suggestion is to consult an air delivery expert to help design a system to meet your needs.

### Vital Components

- Air compressor
- Piping
- Air hoses
- Couplers, fittings
- Air dryers
- Air filters
- Oil and water separators

### Choosing a Compressor

There is diaphragm, rotary and reciprocating to choose from to start. The most popular is reciprocating. Among those are single and double acting, single and two stage, multistage and air or water-cooled.

Tables are available which can help calculate the type, horsepower and CFM delivery needed for shop operations. Consult an expert equipment supplier.

### Piping Recommendations

Copper or aluminum is preferred. Galvanized or black iron pipe is good. PVC is discouraged due to possible sagging or bursting under pressure.

Proper pipe size is very important to maintain adequate air delivery. When planning a system, consult a chart for pipe sizing based on compressor horsepower and length of the piping. Pipes and air hoses which are too small will result in air pressure drops and inadequate CFM delivery.

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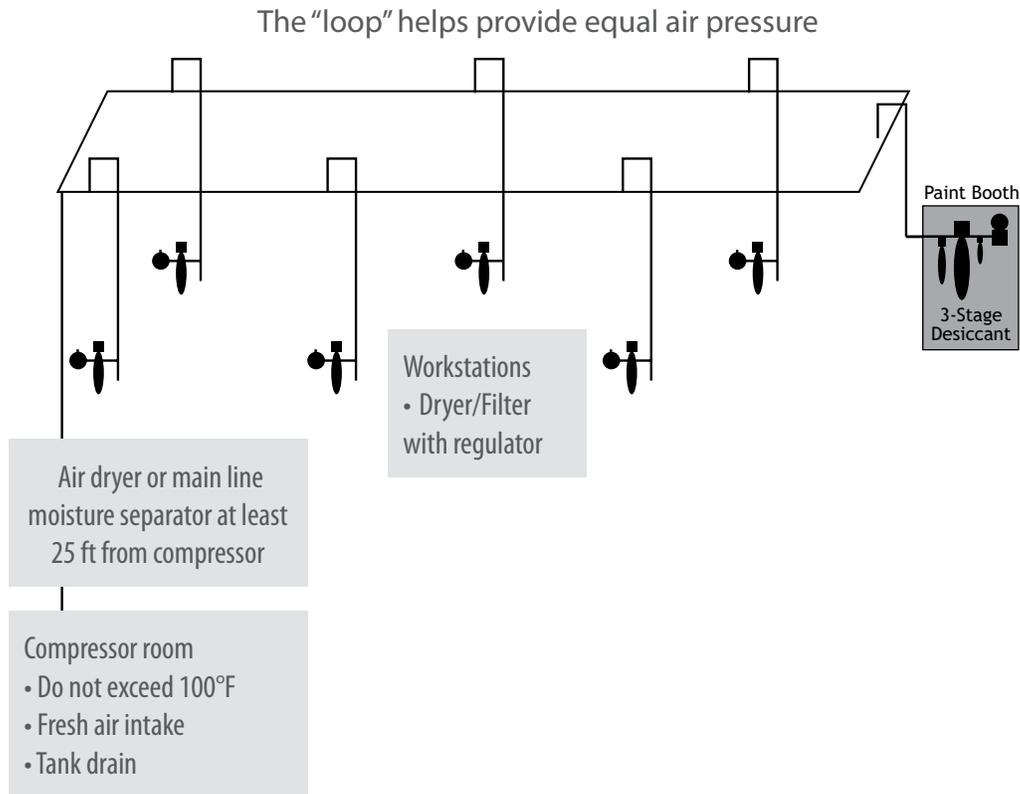


# Equipment

## Loop System

Installing a “loop” piping system will help equalize air pressure and avoid pressure drops. Locate the compressors in an area of good ventilation. If the temperature in the compressor’s location reaches more than 100° F / 37° C while the compressors are running, this area is not suitable. Remember the cooler you can deliver air, the less moisture it will carry.

### Loop System Piping Diagram



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## Installation Tips

- Place compressor in cool, dry area
- Allow space for service of compressor
- Install tank drain for water removal
- Use flex coupling between pipe and compressor
- Take air supply from top of piping system
- Use drip leg configuration on each drop leg
- Install ball valves on drops for easy service of dryer/filter
- Install mainline dryer or separator before loop system
- Install dryer/filter at every workstation leg
- Install 3-stage desiccant in each paint booth

## Pipe and Air Hose Size Charts

### Minimum "Main" Line Air Piping Recommendations

Compressor Equipment		Main Line Dimensions	
Size	Capacity	Length	Size
1½ & 2 H.P.	6 to 9 CFM.	Over 50 ft.	1"
3 & 5 H.P.	12 to 20 CFM.	Up to 200 ft. Over 200 ft.	1" 1½"
5 to 10 H.P.	20 to 40 CFM.	Up to 200 ft. Over 200 ft.	1½" 1½-2"
10 x 15 H.P.	40 to 60 CFM.	Up to 100 ft. Over 100 ft.	1½" 1½-2"

### Air Hose Pressure Loss

Air Hose Inside Diameter (ID) & Length (20ft)	At 15 CFM Air Flow	At 18 CFM Air Flow	At 20 CFM Air Flow	At 25 CFM Air Flow
¼" ID x 20 ft.	-20 psi	-26 psi	-28 psi	-34 psi
⅝" ID x 20 ft.	-7 psi	-10 psi	-12 psi	-20 psi
⅜" ID x 20 ft.	-2.8 psi	-4 psi	-4.8 psi	-7 psi

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### Air Supply System Recommendations

- A minimum of 1" I.D. pipe between the compressor and the paint booth.
- 3/8" I.D. air hose in the paint booth.
- High Flow, 5/16" I.D. air fittings, hose end connections, and couplers.

The larger the inside diameter (I.D.) of these items, the less restriction of airflow you will have in the air supply system. Less restriction = more volume (CFM).

**Note: This is especially critical when using HVLP spray equipment!**



# Compressed Air Drying and Filtration

## Why Use an Air Dryer?

The quality of the compressed air system has a direct effect on the quality of the work.

Dirt, water or oil in your air gun can ruin paint work! Water in your compressed air can reduce the life span of air tools causing premature equipment failure just when you need it most. Protecting the quality of your end product, as well as your investment, is only a matter of selecting the right air dryer for your shop.

Air, compressed or not, contains water in the form of vapor. The amount of water vapor in the air is most often expressed as humidity, the relative ability of air to hold water vapor.

If compressed air containing water is allowed to reach a spray gun it will contaminate the paint job with moisture and oil.

The quality of the compressed air system has a direct effect on the quality of the work. Dirt, water or oil in your air gun can ruin paint work!

## Refrigerated Air Dryers

This leaves some water in the air; if the compressed air temperature drops below this dew point temperature, water droplets will again form. This can happen at the gun nozzle by air releasing from the cap. Air has a tendency to cool down; also, when a solvent is released from a spray gun it will flash off giving a cooling effect on the air. This can drop the air temperature below the desired dew point temperature and cause a blushing effect on the paint. To eliminate trapping of moisture within a paint film, follow the manufacturer's guidelines when choosing a refrigerant type dryer to eliminate any such problems.

### How They Work

- Like an air conditioner
- Cools compressed air and traps water
- Pros—Low maintenance
- Cons—Limit to temperature (33 degrees F) and could leave behind some moisture

## Water Separators and Filters

A water separator does not remove all of the moisture from the air. When air is compressed, its ability to hold water in vapor form is reduced. Some of its water vapor is condensed into liquid droplets. Water separators and filters do an excellent job of taking this liquid water out of compressed air, however they cannot remove the remaining water vapor which eventually travels downstream to your paint gun or air tool.

- Where To Place—At all non-painting air drops
- What To Expect—Will not remove all moisture

There are two main ways to get the water vapor out of the compressed air. Refrigerate the air so that more of the water vapor is condensed out of it or remove the water vapor with a desiccant. Desiccant actually grabs the water molecules out of the air and stores it within the structure of the desiccant.



## Desiccant Dryers

Desiccant air dryers use a desiccant to capture and hold water vapor from the air. This is accomplished by blowing compressed air through a container of desiccant. The desiccant eventually becomes loaded with water and must be either discarded or regenerated.

Regeneration in some units is done on a nightly basis with automatic functions built into the unit. Other units require the removal of the desiccant which then must be baked for a short time to remove the water trapped within the desiccant. All types of desiccant are sensitive to oil, so make sure the unit you choose has a good oil coalescer prior to the bed of desiccant.

### Let's look at two suitable types of desiccants for a paint shop:

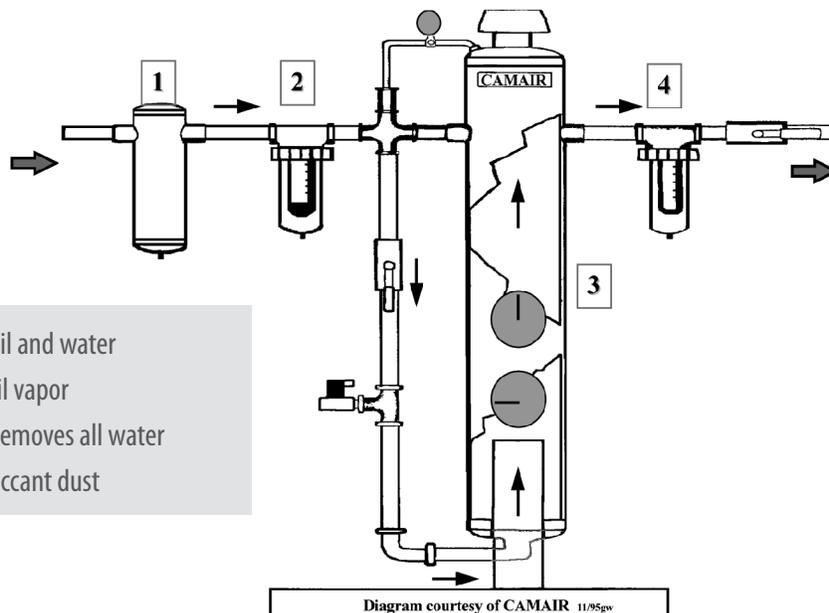
- Activated Alumina is a by-product of the manufacture of aluminum. This product is used for the removal of water vapor and can lower the dew point to 100 degrees below zero. It has a high crush strength and is a low dusting material. The capacity of this desiccant to hold water is slightly lower than silica gel. It can be regenerated by baking and has been determined to work well in a paint shop. When activated alumina is used as a desiccant, a good quality particle filter should be used after the bed of desiccant.
- Silica Gel is a very porous material which has a capacity of holding water in great volumes. This desiccant is a low dusting material, but it also requires a good particle filter after the bed of desiccant. It will fracture when liquid water is introduced into the bed of desiccant, so a good water/oil pre-filter before the desiccant must be used. It will lower the dew point to 40 degrees below zero and can be regenerated by baking. This desiccant has been determined to work well in a paint shop.

### Pros and Cons of Desiccant Dryers:

- Lowers dew point to below 33°F / 1°C, unlike refrigerated air dryers which are limited to 33°F / 1°C
- Eventually must regenerate or discard media
- Requires good oil and particle filters

! Silica Gel desiccant has been determined to work well in a paint shop but it requires good oil and particle filters and you must regenerate or discard media.

## Desiccant Dryer Diagram



1. Separator—Removes oil and water
2. Coalescer—Removes oil vapor
3. Desiccant Chamber—Removes all water
4. Final Filter—Stops desiccant dust

# Booth Filters

Booth filters are important in ensuring the final outcome of a paint job. When replacing your existing intake filters, look for a filter that possesses the capability of trapping particle sizes in the range of 5 - 10 microns. For even these small particles can ruin the appearance of the final product, as well as creating the need for extra work to remove them.

## Intake Filters

- 5-10 micron particle size
- Pre-filters increase filter life

## Exhaust Filters

- Must trap 98% of particles for NESHAP 6H Compliance
- Dispose as hazardous waste

# Common Types of Spray Equipment

## Types of Air Spray Equipment

The term "air spray" simply means that compressed air is used as the power source for applying the paint to any particular object. Here are some example of common air spray equipment:

- Air spray siphon feed - the paint cup is located below the fluid nozzle and therefore the fluid must be siphoned up to the fluid nozzle.
- Air spray gravity feed - the paint cup is located above the fluid nozzle and uses both gravity and suction to deliver the fluid to the fluid nozzle.
- Air spray pressure feed - uses a pressurized pot that forces fluid to the fluid tip with air pressure.

## High Volume Low Pressure (HVLP) vs. Compliant

- HVLP spray guns use a High Volume of air and a Low Pressure to carry the paint droplet to the painting surface. Air cap pressure for HVLP spray equipment is equal to or less than 10 PSI. HVLP require a higher volume of air that conventional or compliant spray guns.
- Compliant spray guns (AKA: reduced pressure, high efficiency, equivalent technology) combine the characteristics of both conventional and HVLP equipment. The paint is atomized at a higher air cap pressure than HVLP spray guns, but the transfer efficiency is equal to or greater than an HVLP.



## Pressure Feed Spray Equipment

In a pressure feed system, the paint material in the pot is put under air “pressure” and forced or pushed out of the gun.

### Pressure Feed Spray Equipment Advantages

- The fluid and atomization air pressures can be independently controlled for better atomization and delivery of the material.
- Spray patterns are very adjustable to suit a wide variety of object sizes or hard to reach areas during painting. Can also mean less passes over large objects.
- Remote paint pots can hold from 1 qt. to many gallons of paint material. This means less time spent mixing paint, refilling equipment, and general increased efficiency.

### Pressure Feed Spray Equipment Disadvantages

- Equipment is more difficult and time-consuming to clean due to hoses and other assemblies involved with remote paint pots.
- Long fluid/air hoses can be awkward to handle.
- Safety issues are of greater concern due to pressurized paint pot.

## Other types of Spray Equipment

- **Airless** equipment utilizes a high pressure pump to deliver the material to the fluid tip. This typically involves pressures of over 2000 psi. The high pressure is needed both to atomize the material and to complete the pattern formation.
- **Air-Assisted Airless** equipment also uses high pressure supplied by a pump, but at pressures 20-40% lower than those required for Airless spraying. The Air-Assisted technique also uses an air cap to deliver a small amount of air to aid in completing the pattern formation.
- **Electrostatic** equipment charges the paint particles making them especially conductive to a grounded object. Paint, in the form of either powdered particles or atomized liquid, is initially projected towards the surface using normal spraying methods, and is then accelerated toward the surface by a powerful electrostatic charge.



## Spray Gun Setups

The manufacturers of spray equipment provide a multitude of fluid tip/needle/air cap combinations. These combinations are commonly referred to as “spray gun setups.” These setups are designed for applying particular categories of paint material.

The following chart will provide general guidance for spray gun setups.

General Spray Gun Setup Recommendations*		
Product	HVLP/Compliant	Pressure Pot
Tie Bond / Spray Bond	1.2 – 1.4 mm	1.0 - 1.2 mm
Most Primers	1.3 – 1.8 mm	1.0 – 1.2 mm
Poly Filler	2.0 – 2.5 mm	NR
Acrylic Polyurethane Topcoats	1.2 – 1.4 mm	1.0 - 1.2 mm
Acrylic Polyurethane Clearcoats	1.2 - 1.4 mm	1.0 - 1.2 mm

\*Always refer to Matthew Technical Data Sheets (TDS) for specific recommendations.

## Atomization

### Proper Atomization is Critical with all types of Spray Equipment

Atomization is the process of breaking up a liquid (primer, paint, etc.) into a droplet or spray mist.

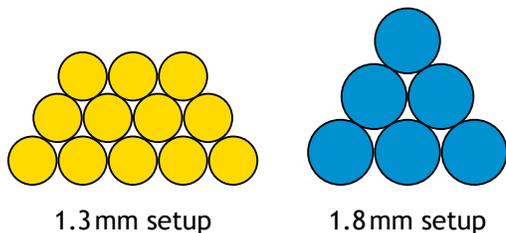
Proper atomization is the main contributor to how the finished paint job will look. Too little atomization can cause a host of problems such as texture (orange peel), sags, over-application of material, or uneven sheen.

Some variables that can affect droplet size and atomization include:

- Spray Gun Setup (fluid tip/needle/air cap)
- Fluid Delivery System (gravity, syphon, pressure-fed, airless, etc.)
- Air Pressure (measured at the air inlet of the spray gun)

#### Example:

Matthews recommends a 1.2mm to a 1.4mm spray gun set up for acrylic polyurethane topcoats and clears. The image below demonstrates the difference in atomization between a 1.3mm and a 1.8mm set up. The smaller droplet size of the 1.3mm setup will smoother finish and better coverage than the larger droplet produced by the 1.8mm setup.



# Fluid to Air Ratio

## The Fluid to Air Ratio

In other words, the amount of paint coming out of the fluid nozzle vs. the amount of atomizing air being supplied by the air cap. This ratio is one of the key performance factors for any type of air spray equipment.

**If you have too much fluid and not enough atomizing air, the paint can:**

- Go on too wet and cause runs, sags, curtains, etc.
- Have too much orange peel or rough texture
- Dry and cure slowly due to excessive film build

**If you have too much atomizing air and not enough fluid, the paint can:**

- Go on dry with very little “flow”
- Have too little film build - not enough coating to perform properly
- “Flash dry” on the surface causing solvents to be trapped which can lead to solvent pop, die back, etc.

Obviously neither of the alternatives above are acceptable.

**The balance between fluid delivery and atomization is too important to be left to chance.**

**The fluid delivery can be controlled by the following:**

- Changing the spray gun setup - a smaller fluid tip will deliver less fluid and a larger fluid tip will deliver more fluid.
- Adjusting the amount of “trigger travel” - a “full” trigger pull will deliver the maximum amount of material. “Choking”, or turning the trigger stop in, will deliver less material.

**The atomizing air can be controlled by the following:**

- Adjusting the air regulator on the wall to allow for the maximum amount of PSI is being delivered to the spray gun (refer to spray gun manufacturer’s recommendations).
- Adjusting the air regulator on the spray gun to “fine tune” the air pressure.
- Using high-flow fittings and couplers will allow for the maximum amount of air volume to the spray gun.

The balance between fluid delivery and atomization is too important to be left to chance and is one of the key performance factors for any type of air spray equipment.



# Application



# The Purpose of Solvents

Most paint products require the addition of a solvent, also known as reducer. Refer to Matthews Technical Data Sheets (TDS) for reducer choices and mix ratios for specific products.

## Fundamental Facts about Reducers

- Reducers are made up of a combination or blend of solvents that provide different performance and application characteristics.
  - Chemical strength to reduce the viscosity of a high solids resin
  - Evaporate at different rates during the application process
  - Alter the product's application characteristics
- Reducers are temporary tools needed during the paint application process.
- The ability to correctly choose, use and understand reducers is a necessary skill for any refinish technician.

## Primary Tasks

There are three primary tasks that a reducer must perform:

1. Make the paint thin enough to apply easily through a spray gun.
2. Act as a "carrier" to get the paint to the part as well as provide initial levelling and adhesion.
3. Allow the paint to achieve final levelling and begin the drying/curing process.

## Solvent Blends

These three primary tasks are performed by blending three types of solvent used to make a reducer: front-end solvents, middle solvents, and tail solvents. The chart below shows each of these blends and their role in the painting process.

### Front-end solvents

Thin the resins in the paint product to allow it to be applied with refinish spray equipment. Evaporate quickly after leaving the spray gun.

### Middle solvents

Remain with atomized paint to provide initial adhesion and leveling of product once it reaches the substrate. Evaporate quickly after reaching the panel.

### Tail solvents

Remain with the applied product to finish the leveling process (flow) as well as insure chemical adhesion to previous products. Evaporate last during the drying/curing process.



# The Importance of Choosing the Correct Solvent

## Temperature

Always choose a solvent (reducer or thinner) and/or catalyst that is recommended for the temperature in the spray booth. Refer to Matthews Technical Data Sheets (TDS) for reducer and catalyst options and mix ratios.

## Job Size

Also factored in is the job size. When spraying very large surfaces, especially flat ones, the air from the spray gun continually moving across the surface of the unit with each pass will blow some solvent out of the paint prematurely. Use a hotter temp/slower evaporating solvent for large surfaces.

## Airflow

If the airflow in the spray area seems very fast across the surface of the unit to be painted, then the solvent will be pulled out of the paint too quickly. Choose a slower solvent or adjust the airflow. Never spray in an area with inadequate airflow and proper ventilation.

## Note

A common mistake is to choose a “fast” (cool temperature) solvent in order to speed the dry time of the paint. This is a dangerous way to attempt to speed up the dry time, and in fact will lengthen the dry time. This happens because, as the fast solvent flashes off, the top of the paint film skins over and essentially traps remaining solvents within the film. Subsequent coats of paint will do the same thing and compound the problem. As the remaining trapped solvent battles its way out through the paint film, the overall dry time is increased.

## Undercoats

Many people make the mistake of always using the fastest available reducer for primers. Choosing the proper solvent for undercoats is just as important as it is for topcoats. The proper solvent for the ambient temperature will allow the coating to stay “open” on top and allow the remaining solvent to pass through.



# Matthews Reducer Selection Guide: Conventional

The below recommendations are only a general reference and should be used solely as a starting point for choosing the appropriate reducer. Your particular spray environment and job size may require slight adjustments.

## Tips

- A higher temp reducer will allow the surface to stay open longer and provide additional leveling.
- Consider the job size when selecting the appropriate reducer. Larger jobs may require a higher temp reducer in order to maintain a “wet” edge.
- Where there is excessive air flow in the spray area, a higher temp reducer should be considered to minimize the potential for solvent entrapment.

Conventional Reducers							
60°F (15°C)	65°F (18°C)	70°F (21°C)	75°F (24°C)	80°F (26°C)	85°F (29°C)	90°F (32°C)	95°F (35°C)
							45251SP/01*
				6396SP/01			
			45290SP/01				
		45280SP/01					
6379SP/01							

\*Mix up to 50/50 with 6396SP/01 reducer



## Matthews Reducer Selection Guide: Low VOC

The below recommendations are only a general reference and should be used solely as a starting point for choosing the appropriate reducer. Your particular spray environment and job size may require slight adjustments.

### Tips

- A higher temp reducer will allow the surface to stay open longer and provide additional leveling.
- Consider the job size when selecting the appropriate reducer. Larger jobs may require a higher temp reducer in order to maintain a “wet” edge.
- Where there is excessive air flow in the spray area, a higher temp reducer should be considered to minimize the potential for solvent entrapment.

Low VOC Reducers							
60°F (15°C)	65°F (18°C)	70°F (21°C)	75°F (24°C)	80°F (26°C)	85°F (29°C)	90°F (32°C)	95°F (35°C)
					6302SP/01		
		6301SP/01					
6300SP/01							

## Matthews Reducer Selection Guide: Exempt

The below recommendations are only a general reference and should be used solely as a starting point for choosing the appropriate reducer. Your particular spray environment and job size may require slight adjustments.

### Tips

- A higher temp reducer will allow the surface to stay open longer and provide additional leveling.
- Consider the job size when selecting the appropriate reducer. Larger jobs may require a higher temp reducer in order to maintain a “wet” edge.
- Where there is excessive air flow in the spray area, a higher temp reducer should be considered to minimize the potential for solvent entrapment.

Exempt Reducers								
60°F (15°C)	65°F (18°C)	70°F (21°C)	75°F (24°C)	80°F (26°C)	85°F (29°C)	90°F (32°C)	95°F (35°C)	
					6372SP/01			
		6371SP/01						
	6370SP/01							



# Matthews Reducer Selection Guide: Ultra Low VOC

The below recommendations are only a general reference and should be used solely as a starting point for choosing the appropriate reducer. Your particular spray environment and job size may require slight adjustments.

## Tips

- A higher temp reducer will allow the surface to stay open longer and provide additional leveling.
- Consider the job size when selecting the appropriate reducer. Larger jobs may require a higher temp reducer in order to maintain a “wet” edge.
- Where there is excessive air flow in the spray area, a higher temp reducer should be considered to minimize the potential for solvent entrapment.

Ultra Low VOC Reducers							
60°F (15°C)	65°F (18°C)	70°F (21°C)	75°F (24°C)	80°F (26°C)	85°F (29°C)	90°F (32°C)	95°F (35°C)
					6372SP/01 MAP-LVRS03/01		
	MAP-LVRS01/01 & /04		MAP-LVRS02/01				



# Spray Gun Adjustment

After choosing the correct spray gun and setup, the next step is to adjust the spray gun.

There are three main adjustments on a spray gun:

### Fluid Control

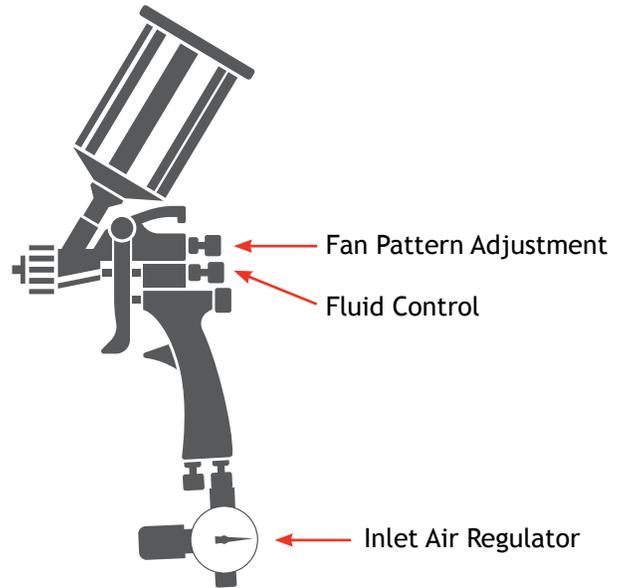
This is the knob that sits directly behind the fluid needle and controls how much or how little the trigger can be pulled. Adjust the fluid knob to full trigger as a starting point.

### Fan Pattern Adjustment

Start with a “full” pattern, and adjust down as necessary. Important: changes to the fan pattern will change the spray gun’s atomizing air pressure, so always recheck the inlet pressure after adjusting fan pattern.

### Inlet Air Pressure

Follow spray gun manufacturer’s recommendations for inlet air pressure.



# Spray Gun Pattern Check

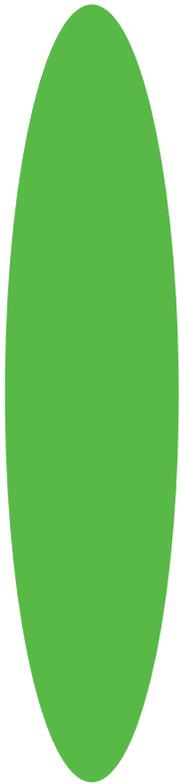
Before beginning any project, it is important to adjust the spray pattern properly.

### Step 1

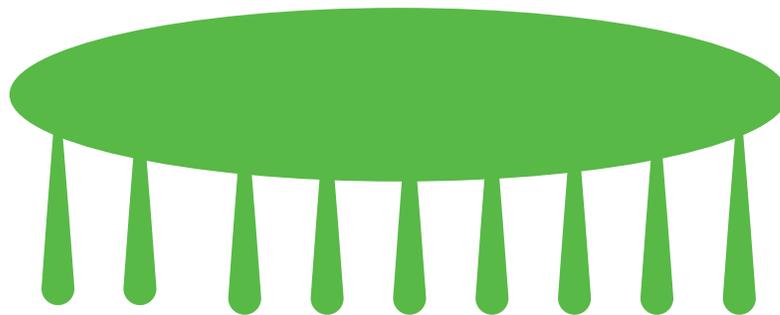
Holding the spray gun 8 inches from the pattern board, pull the trigger completely for a few seconds without moving the gun.

### Step 2

Turn the air cap 90° and pull the trigger until the product begins to run.

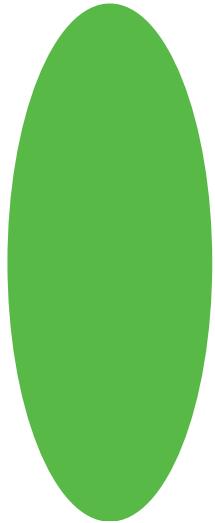


Elliptical in shape  
8-10 inch pattern



Runs should be a consistent length along the whole pattern

# Incorrect Spray Patterns



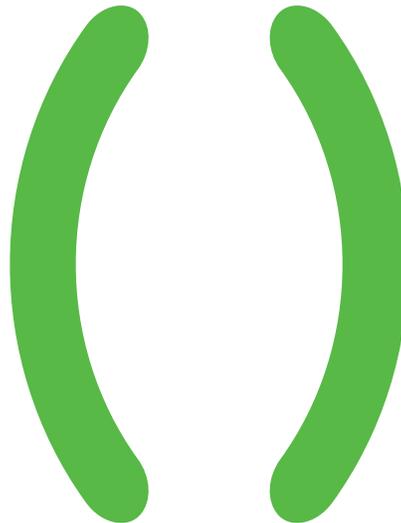
Too little air  
Too much fluid  
Fan too narrow



Too much air  
Not enough fluid  
Fan too wide



Clogged or damaged  
air cap or needle



Restriction of fluid or air

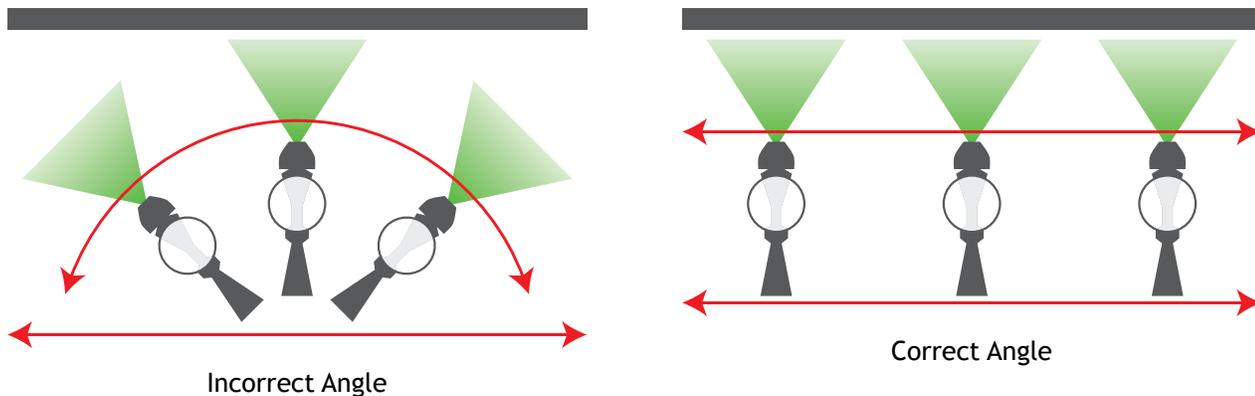
# Spray Gun Technique

Spray gun technique and its relationship to atomization of products is often misunderstood by many painters. Proper spray gun technique involves four facets:

- Angle
- Distance
- Speed
- Path/Overlap

## Angle

The recommended spray gun angle in relation to the surface being sprayed is  $90^\circ$ . At this angle, the product atomizes properly, in an even film. Maintaining a perfect  $90^\circ$  angle to all surfaces is impossible. Using it as a guideline will increase the chances of the paint being deposited in an even film, ensuring proper film build and drying characteristics. The proper spray gun angle also reduces the possibility of striping or mottling when applying metallic or low gloss colors.



## Distance

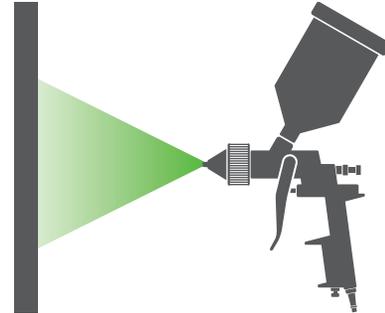
The distance from the surface will vary somewhat with the size and shape of unit being sprayed and the spray equipment. The recommended distance for most Matthews products is 8 to 10 inches from the surface.

### 8 - 10" from Surface

Holding the spray gun at the recommended distance of 8 to 10 inches allows the proper amount of material to reach the panel and flow out.

This technique does several things:

- Allows the correct in-flight solvent loss
- Dries and cures correctly
- Provides even film build
- Allows for proper adhesion



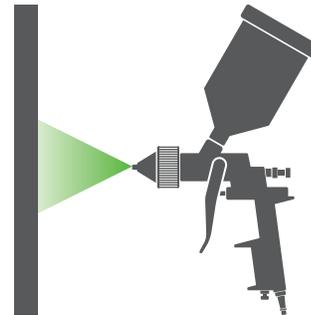
8 - 10" from surface

### 3 - 4" from Surface

Holding the spray gun closer than recommended restricts the separation of atomized particles resulting in excessive wetting of the product.

This technique does several things:

- Pounds solvent rich material on the surface which provides insufficient film build
- Slows dry and cure times
- Traps solvents that can lead to die-back and solvent popping



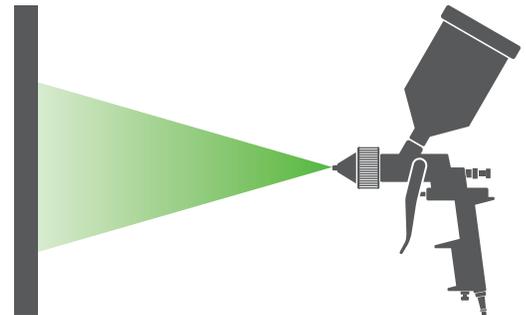
3 - 4" from surface

### 12 - 15" from Surface

Holding the spray gun back from the surface farther than recommended allows the atomized product to widely separate and will lack the required wetting on impact.

This technique does several things:

- Too much material lost with in-flight solvent loss
- Dries too fast (will have a dry, rough film)
- Insufficient film build
- Improper wetting of material
- May require more coats to cover



12 - 15" from surface

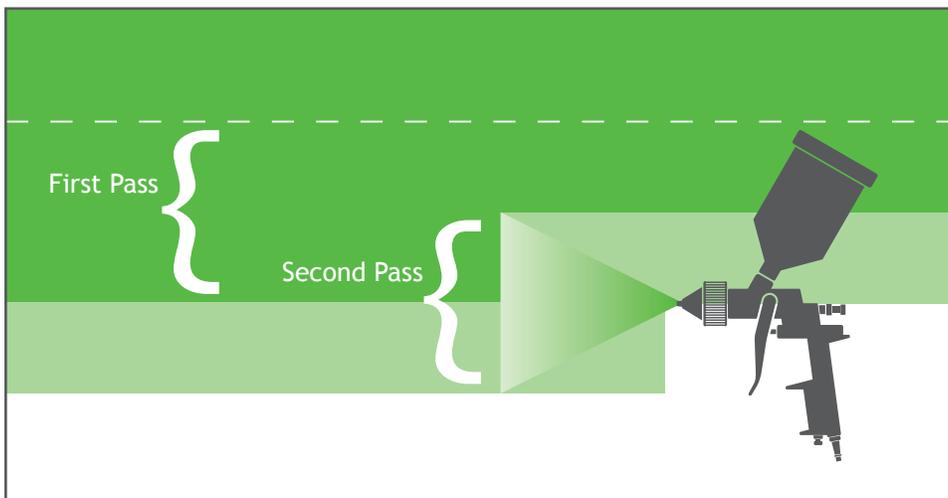
## Speed

Spray gun travel speed should be such as to ensure uniform film build. The best way to judge spray gun speed is to watch the way the paint is striking the panel. Ask yourself the following questions:

- Is the paint product laying down correctly?
- Is it wet enough?
- Is it even enough?

## Path/Overlap

The spray gun path or “overlap” should provide the proper “wetness” without creating excessive film build. Using a 50% (minimum ) - 75% (maximum ) overlap is the best “path” to take for even film build characteristics in most products.



50 - 75% Overlap

# Pressure Feed Systems

## Step-by-Step: Initial Startup for Pressure Feed System

### Items needed:

- Personal Protective Equipment (PPE), as used for any normal painting activity
- Matthew Technical Data Sheet (TDS) for Pressure Pot Fluid Delivery and Spray Gun Setup recommendations
- Pressure pot and spray gun
- Enough RTS material to fill the fluid line and perform multiple fluid delivery tests
- Catchment container for fluid that will be purged from line
- Measuring cup
- Stopwatch

### Perform a Fluid Delivery Test (aka a Dump Test):

1. Pour ready-to-spray (RTS) material into a clean pressure pot.
2. Before connecting an air hose to the pressure pot, adjust the spray gun to "full" trigger and turn atomizing air regulator completely off.
3. Attach air hose to the pressure pot and adjust the pot pressure:
  - For 2-quart pressure pots, set the pot pressure between 5 - 7 psi as a starting point
  - For larger pots, set the pot pressure to 10 psi as a starting point
4. With the atomizing air still off, point the spray gun into a container and pull the trigger. Once all the air has been purged from the fluid line and a steady stream of material comes out of the fluid tip release the trigger.
5. With the spray gun pointing into the measuring cup, pull the trigger and start the stopwatch simultaneously.
6. When the stopwatch reaches 15 seconds, release the trigger.
7. Record how much material is in the measuring cup and multiply the amount by four (4).

Example: If 2.5 ounces of fluid were "dumped" into the measuring cup in 15 seconds, multiply 2.5 ounces by four (4) to determine how much fluid is being delivered in one (1) minute. In this example, the fluid delivery is 10 ounces per minute (2.5 ounces in 15 seconds X 4 = 10 ounces/minute). This fluid amount would be a good starting point for Matthews topcoats and clears, since the recommended pressure pot fluid delivery is between 8 - 12 ounces per minute. Always refer to Matthews Technical Data Sheets (TDS) for specific Fluid Ounces per Minute recommendations.

**NOTE: If too much or too little fluid is being delivered, the following adjustments can be made:**

### Too Much Fluid Delivery:

1. Decrease the pot pressure
2. Or, change the spray gun set up to a smaller setup
3. Or, turn down ("choke" in) the fluid control knob

### Too Little Fluid Delivery:

1. Increase the pot pressure
2. Or, change the spray gun set up to a larger setup

After making adjustments, continue to perform Fluid Delivery Tests until the desired amount of fluid delivered has been achieved.

The next step is to adjust the atomizing air to manufacturer's recommendations and performed a pattern test as described earlier in this section.





# Substrate Preparation







# The Best Steps for the Best Coat

## Matthews Paint Substrate Preparation Guide

Select your substrate from the list below.

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# Important Notes

Materials described are designed for application by professional, trained personnel using proper equipment and are not intended for sale to the general public.

Before any spray applications, consult your local city, local air quality districts, or government office to determine what regulations you must follow to be compliant with VOC regulations in your community.

Investigate or consult with the substrate manufacturer for information regarding proper cleaning and preparation for specialty coatings. If you cannot find your substrate in this guide, contact the substrate manufacturer.

Products mentioned may be hazardous. Always follow proper safety precautions when using Matthews products. Safe usage requires reading, understanding and following all labels, SDS, and Technical Data Sheets before use.

Procedures for applications mentioned are suggestions only and are not to be construed as representations or warranties as to performance, results, or fitness for any intended use, nor does Matthews Paint warrant freedom from patent infringement in the use of any formula or process set forth herein.

## Keys to Success

Statements and methods described are based upon the best information and practices known to Matthews Paint.

The spray area and substrate must be warm and have adequate airflow. Application of primers, topcoats, and clearcoats should never take place in temperatures under 60°F/16°C.

Knock down sharp edges whether routed or cut. Round any dramatic sharp edges on substrate. Primer and paint topcoat films are weakest on sharp 90 degree edges.

Follow the procedures listed for specific substrate in this guide for cleaning, preparation and primer recommendations.

Follow spray equipment manufacturer's instructions for gun set-up and proper air pressure recommendations.

We recommend testing the process for any new substrate, product or first time application procedures before permanent production begins. Periodic testing on application and adhesion confirms the product and production performance.

Review Technical Data Sheets or Matthews Reducer Selection Charts for reducer selection guidance. Remember that the change of seasons affect the temperature and humidity during application.

Allow proper flash time between coats. Flash times will vary dependent upon film thickness, temperature, solvent selection, spray gun set-up, application, etc. Additional coats may require extended flash time.

For additional information regarding color formulas, specifications, or technical questions, contact Matthews Paint at **800-323-6593** or visit our web site at [www.matthewspaint.com](http://www.matthewspaint.com).



# Aluminum

- Use proper Personal Protective Equipment (PPE) during sanding and product application.



## Brilliant White Primer:

### 274535SP/01: *RTS 3.5 VOC*

- Clean with 45330SP/01 Speed Prep Cleaner, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- For interior surfaces, inside channel letters and light boxes, abrading is not required.
- For exterior surfaces, abrade as necessary with 180 - 320 grit, finishing sanding with the finest grit possible.
- Clean again with appropriate cleaner.
- Apply 1 to 2 wet coats, allowing proper flash time between coats.
- Allow 30 minutes to flash before topcoating.
- Topcoat per technical data sheet recommendations.

## Non-Chromate Etch Primer:

### 74350SP/01: *RTS 3.5 VOC*

- Clean with 45330SP/01 Speed Prep Cleaner, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Abrade as necessary with 180 - 320 grit, finishing sanding with the finest grit possible.
- Clean again with appropriate cleaner.
- Apply 1 full wet coat Non-Chromate Etch Primer only.
- Allow 30 minutes to flash before topcoating.
- Topcoat per technical data sheet recommendations.

## PT Filler:

### 74760SP/01: *RTS 6.4 VOC*

- Clean with 45330SP/01 Speed Prep Cleaner, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Abrade as necessary with 180 - 320 grit, finishing sanding with the finest grit possible.
- Clean again with appropriate cleaner.
- Apply 2 full wet coats, allowing proper flash time between coats.
- Allow 30 minutes to flash before topcoating.
- Topcoat per technical data sheet recommendations.

## HBPT Self-Etching Metal Treatment:

### 74770SP/01: *RTS 6.13 VOC*

- Clean with 45330SP/01 Speed Prep Cleaner, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Abrade as necessary with 180 - 320 grit, finishing sanding with the finest grit possible.
- Clean again with appropriate cleaner.
- Apply 2 full wet coats, allowing proper flash time between coats.
- Allow 30 minutes to flash before topcoating.
- Topcoat per technical data sheet recommendations.

**Continued on next page...**



# Aluminum (Continued)

## 2.1 Epoxy Primers:

### 274528SP/01 Gray • 274530SP/01 White • 274531SP/01 Black

- Clean with 45330SP/01 Speed Prep Cleaner, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Abrade as necessary with 180 - 320 grit, finishing sanding with the finest grit possible.
- Clean again with appropriate cleaner.
- Apply 1 to 2 full wet coats, allowing proper flash time between coats.
- Allow 30 minutes to flash before topcoating.
- Topcoat per technical data sheet recommendations.

## White Epoxy Primer or Black Epoxy Primer:

### 274908SP/01 or 274808SP/01: *Both are RTS 3.90-3.95 VOC*

- Clean with 45330SP/01 Speed Prep Cleaner, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Abrade as necessary with 180 - 320 grit, finishing sanding with the finest grit possible
- Clean again with appropriate cleaner.
- Apply 2 full wet coats, allowing proper flash time between coats.
- Allow 30 minutes to flash before topcoating.
- Topcoat per technical data sheet recommendations.

## U-Prime:

### 274685SP/01: *RTS 2.8 or 3.5 VOC*

- Clean with 45330SP/01 Speed Prep Cleaner, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Abrade as necessary with 180 - 320 grit, finishing sanding with the finest grit possible.
- Clean again with appropriate cleaner.
- Apply 2 full wet coats, allowing proper flash time between coats.
- Allow 30 minutes to flash before topcoating.
- Topcoat per technical data sheet recommendations.

## Metal Pretreatment:

### 74734SP/01: *RTS 6.34 VOC*

- Clean with 45330SP/01 Speed Prep Cleaner, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Abrade as necessary with 220 - 320 grit, finishing sanding with the finest grit possible
- Clean again with appropriate cleaner.
- Apply 2 medium wet coats, allowing proper flash time between coats.
- Allow 30 minutes to flash before topcoating.
- Topcoat per technical data sheet recommendations.

74734SP/01 Metal Pretreatment not for use over sand-blasted, shot-blasted or media-blasted aluminum due to the product's ZERO filling properties.

## HBEF Self-Etching Metal Treatment:

### 74780SP/01: *RTS 6.04 VOC*

- Clean with 45330SP/01 Speed Prep Cleaner, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Abrade as necessary with 180 - 320 grit, finishing sanding with the finest grit possible
- Clean again with appropriate cleaner.
- Apply 2 full wet coats, allowing proper flash time between coats.
- Allow 30 minutes to flash before topcoating.
- Topcoat per technical data sheet recommendations.

## Aluminum (Continued)

### White Epoxy Primer:

#### MAP-LVU100/01: *RTS 0.42 VOC*

- Clean with 45330SP/01 Speed Prep Cleaner, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Abrade as necessary with 180 - 320 grit, finishing sanding with the finest grit possible.
- Clean again with appropriate cleaner.
- Apply 1 to 2 full wet coats allowing proper flash time between coats.
- Allow 30 minutes (spraying) or 1.5 - 2.5 hours (brush/roll) before topcoating.
- Topcoat per technical data sheet recommendations.

### Gray Epoxy Primer:

#### 6007SP/01: *3.5 VOC*

- Clean with 45330SP/01 Speed Prep Cleaner, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Abrade as necessary with 180 - 320 grit, finishing sanding with the finest grit possible.
- Clean again with appropriate cleaner.
- Apply 2 full wet coats, allowing proper flash time between coats.
- Allow 45 minutes to flash before topcoating.
- Topcoat per technical data sheet recommendations.

### Polyester Primer Surfacer:

#### 6001SP/01: *RTS 1.8 VOC*

- Clean with 45330SP/01 Speed Prep Cleaner, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Abrade as necessary with 180 - 320 grit, finishing sanding with the finest grit possible.
- Clean again with appropriate cleaner.
- Mix Polyester Primer Surfacer according to instructions (see text box).
- Apply 2 full wet coats, allowing proper flash time between coats.
- Apply additional coats as necessary to achieve desired filling.
- Allow 1.5 hours dry time before sanding, cleaning and topcoating.
- Topcoat per technical data sheet recommendations.

When spraying 6001SP/01 Polyester Primer Surfacer, it is important to refer to the technical sheets for spray tip details. We recommend the use of a 2.0 tip or larger in the spray gun. When activated, mix thoroughly and apply immediately. Clean equipment immediately.



# Anodized Aluminum

- Use proper Personal Protective Equipment (PPE) during sanding and product application.
- Sanding must be performed to remove all the anodized coating from the aluminum.



## 2.1 Epoxy Primers:

### 274528SP/01 Gray • 274530SP/01 White • 274531SP/01 Black

- Clean with 45330SP/01 Speed Prep Cleaner, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Abrade as necessary with 180 - 320 grit, finishing sanding with the finest grit possible.
- Clean again with appropriate cleaner.
- Apply 1 to 2 full wet coats, allowing proper flash time between coats.
- Allow 30 minutes to flash before topcoating.
- Topcoat per technical data sheet recommendations.

### White Epoxy Primer or Black Epoxy Primer:

#### 274908SP/01 or 274808SP/01: *Both are RTS 3.90-3.95 VOC*

- Clean with 45330SP/01 Speed Prep Cleaner, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Abrade as necessary with 180 - 320 grit, finishing sanding with the finest grit possible
- Clean again with appropriate cleaner.
- Apply 2 full wet coats, allowing proper flash time between coats.
- Allow 30 minutes to flash before topcoating.
- Topcoat per technical data sheet recommendations.

### White Epoxy Primer:

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#### MAP-LVU100/01: *RTS 0.42 VOC*

- Clean with 45330SP/01 Speed Prep Cleaner, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Abrade as necessary with 180 - 320 grit, finishing sanding with the finest grit possible.
- Clean again with appropriate cleaner.
- Apply 1 to 2 full wet coats allowing proper flash time between coats.
- Allow 30 minutes (spraying) or 1.5 - 2.5 hours (brush/roll) before topcoating.
- Topcoat per technical data sheet recommendations.

### Gray Epoxy Primer:

#### 6007SP/01: *3.5 VOC*

- Clean with 45330SP/01 Speed Prep Cleaner, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Abrade as necessary with 180 - 320 grit, finishing sanding with the finest grit possible.
- Clean again with appropriate cleaner.
- Apply 2 full wet coats, allowing proper flash time between coats.
- Allow 45 minutes to flash before topcoating.
- Topcoat per technical data sheet recommendations.



# Aluminum Composite Sheets

## Alucobond®, Dibond, Alumilite, Alupanel, and Ecopanel



- Use proper Personal Protective Equipment (PPE) during sanding and product application.
- Topcoat can be directly applied providing bare aluminum is not exposed after abrading. If bare aluminum is exposed, use epoxy primer application prior to topcoating.

### Matthews Topcoat:

- Clean with 45330SP/01 Speed Prep Cleaner, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Abrade as necessary using 320 - 400 grit or equivalent scuff pad until sheen has been removed.
- Clean again with appropriate cleaner.
- Topcoat per technical data sheet recommendations.

### 2.1 Epoxy Primers:

#### 274528SP/01 Gray • 274530SP/01 White • 274531SP/01 Black

- Clean with 45330SP/01 Speed Prep Cleaner, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Abrade as necessary with 180 - 320 grit, finishing sanding with the finest grit possible.
- Clean again with appropriate cleaner.
- Apply 1 to 2 full wet coats, allowing proper flash time between coats.
- Allow 30 minutes to flash before topcoating.
- Topcoat per technical data sheet recommendations.

### White Epoxy Primer or Black Epoxy Primer:

#### 274908SP/01 or 274808SP/01: *Both are RTS 3.90-3.95 VOC*

- Clean with 45330SP/01 Speed Prep Cleaner, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Abrade as necessary with 180 - 320 grit, finishing sanding with the finest grit possible
- Clean again with appropriate cleaner.
- Apply 2 full wet coats, allowing proper flash time between coats.
- Allow 30 minutes to flash before topcoating.
- Topcoat per technical data sheet recommendations.

### White Epoxy Primer:

#### MAP-LVU100/01: *RTS 0.42 VOC*

- Clean with 45330SP/01 Speed Prep Cleaner, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Abrade as necessary with 180 - 320 grit, finishing sanding with the finest grit possible.
- Clean again with appropriate cleaner.
- Apply 1 to 2 full wet coats allowing proper flash time between coats.
- Allow 30 minutes (spraying) or 1.5 - 2.5 hours (brush/roll) before topcoating.
- Topcoat per technical data sheet recommendations.

**Continued on next page...**



# Aluminum Composite Sheets (Continued)

## Gray Epoxy Primer:

**6007SP/01: 3.5 VOC**

- Clean with 45330SP/01 Speed Prep Cleaner, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Abrade as necessary with 180 - 320 grit, finishing sanding with the finest grit possible.
- Clean again with appropriate cleaner.
- Apply 2 full wet coats, allowing proper flash time between coats.
- Allow 45 minutes to flash before topcoating.
- Topcoat per technical data sheet recommendations.

# Steel

- Use proper Personal Protective Equipment (PPE) during sanding and product application.



## 2.1 Epoxy Primers:

**274528SP/01 Gray • 274530SP/01 White • 274531SP/01 Black**

- Clean with 45330SP/01 Speed Prep Cleaner, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Abrade as necessary with 180 - 320 grit, finishing sanding with the finest grit possible.
- Clean again with appropriate cleaner.
- Apply 1 to 2 full wet coats, allowing proper flash time between coats.
- Allow 30 minutes to flash before topcoating.
- Topcoat per technical data sheet recommendations.

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## White Epoxy Primer or Black Epoxy Primer:

**274908SP/01 or 274808SP/01: Both are RTS 3.90-3.95 VOC**

- Clean with 45330SP/01 Speed Prep Cleaner, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Abrade as necessary with 180 - 320 grit, finishing sanding with the finest grit possible.
- Clean again with appropriate cleaner.
- Apply 2 full wet coats, allowing proper flash time between coats.
- Allow 30 minutes to flash before topcoating.
- Topcoat per technical data sheet recommendations.



## Steel (Continued)

### White Epoxy Primer:

#### MAP-LVU100/01: *RTS 0.42 VOC*

- Clean with 45330SP/01 Speed Prep Cleaner, 6405SP/01 Low VOC Cleaner, or 6410SP/01/01 Low VOC PreCleaner.
- Abrade as necessary with 180 - 320 grit, finishing sanding with the finest grit possible.
- Clean again with appropriate cleaner.
- Apply 1 to 2 full wet coats allowing proper flash time between coats.
- Allow 30 minutes (spraying) or 1.5 - 2.5 hours (brush/roll) before topcoating.
- Topcoat per technical data sheet recommendations.

### Gray Epoxy Primer:

#### 6007SP/01: *3.5 VOC*

- Clean with 45330SP/01 Speed Prep Cleaner, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Abrade as necessary with 180 - 320 grit, finishing sanding with the finest grit possible.
- Clean again with appropriate cleaner.
- Apply 2 full wet coats, allowing proper flash time between coats.
- Allow 45 minutes to flash before topcoating.
- Topcoat per technical data sheet recommendations.

### Brilliant White Primer:

#### 274535SP/01: *RTS 3.5 VOC*

- Clean with 45330SP/01 Speed Prep Cleaner, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Abrade as necessary with 180 - 320 grit, finishing sanding with the finest grit possible.
- Clean again with appropriate cleaner.
- Apply 1 to 2 wet coats, allowing proper flash time between coats.
- Allow 30 minutes to flash before topcoating.
- Topcoat per technical data sheet recommendations.

### Non-Chromate Etch Primer:

#### 74350SP/01: *RTS 3.5 VOC*

- Clean with 45330SP/01 Speed Prep Cleaner, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Abrade as necessary with 180 - 320 grit, finishing sanding with the finest grit possible.
- Clean again with appropriate cleaner.
- Apply 1 full wet coat Non-Chromate Etch Primer only.
- Allow 30 minutes to flash before topcoating.
- Topcoat per technical data sheet recommendations.

### PT Filler:

#### 74760SP/01: *RTS 6.4 VOC*

- Clean with 45330SP/01 Speed Prep Cleaner, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Abrade as necessary with 180 - 320 grit, finishing sanding with the finest grit possible.
- Clean again with appropriate cleaner.
- Apply 2 full wet coats, allowing proper flash time between coats.
- Allow 30 minutes to flash before topcoating.
- Topcoat per technical data sheet recommendations.



## Steel (Continued)

### HBPT Self-Etching Metal Treatment:

#### 74770SP/01: *RTS 6.13 VOC*

- Clean with 45330SP/01 Speed Prep Cleaner, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Abrade as necessary with 180 - 320 grit, finishing sanding with the finest grit possible
- Clean again with appropriate cleaner.
- Apply 2 full wet coats, allowing proper flash time between coats.
- Allow 30 minutes to flash before topcoating.
- Topcoat per technical data sheet recommendations.

### HBEF Self-Etching Metal Treatment:

#### 74780SP/01: *RTS 6.04 VOC*

- Clean with 45330SP/01 Speed Prep Cleaner, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Abrade as necessary with 180 - 320 grit, finishing sanding with the finest grit possible
- Clean again with appropriate cleaner.
- Apply 2 full wet coats, allowing proper flash time between coats.
- Allow 30 minutes to flash before topcoating.
- Topcoat per technical data sheet recommendations.

### U-Prime:

#### 274685SP/01: *RTS 2.8 VOC*

- Clean with 45330SP/01 Speed Prep Cleaner, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Abrade as necessary with 180 - 320 grit, finishing sanding with the finest grit possible.
- Clean again with appropriate cleaner.
- Apply 2 full wet coats, allowing proper flash time between coats.
- Allow 30 minutes to flash before topcoating.
- Topcoat per technical data sheet recommendations.

### Polyester Primer Surfacer:

#### 6001SP/01: *RTS 1.8 VOC*

- Clean with 45330SP/01 Speed Prep Cleaner, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Abrade as necessary with 180 - 320 grit, finishing sanding with the finest grit possible.
- Clean again with appropriate cleaner.
- Mix Polyester Primer Surfacer according to instructions (see text box).
- Apply 2 full wet coats, allowing proper flash time between coats.
- Apply additional coats as necessary to achieve desired filling.
- Allow 1.5 hours dry time before sanding, cleaning and topcoating.
- Topcoat per technical data sheet recommendations.

When spraying 6001SP/01 Polyester Primer Surfacer, it is important to refer to the technical sheets for spray tip details. We recommend the use of a 2.0 tip or larger in the spray gun. When activated, mix thoroughly and apply immediately. Clean equipment immediately.

# Steel Carbon Steel, Cast Iron, Hot Dipped Galvanized, Galvaneal, Galvalume, Bonderized, Phosphate Coated, Passivators or Stabilizers



- Use proper Personal Protective Equipment (PPE) during sanding and product application.
- Galvanized Steel requires special attention:
  - Some galvanized steel manufacturers apply an oil treatment to protect the substrate while in storage. This oil must be removed prior to abrading.
  - Some galvanized steel has a passivation coating applied designed to protect the substrate while it weathers naturally. This coating must be removed before priming and top coating.
  - Be aware that freshly galvanized steel will continue to outgas as it ages. It must be allowed to age (weather) as per manufacturer's recommendation before priming and topcoating.
  - For more detailed information regarding painting Galvanized Steel, refer to ASTM D6386.

## 2.1 Epoxy Primers:

### 274528SP/01 Gray • 274530SP/01 White • 274531SP/01 Black

- Clean with 45330SP/01 Speed Prep Cleaner, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Abrade as necessary with 180 - 320 grit, finishing sanding with the finest grit possible.
- Clean again with appropriate cleaner.
- Apply 1 to 2 full wet coats, allowing proper flash time between coats.
- Allow 30 minutes to flash before topcoating.
- Topcoat per technical data sheet recommendations.

### White Epoxy Primer or Black Epoxy Primer:

#### 274908SP/01 or 274808SP/01: *Both are RTS 3.90-3.95 VOC*

- Clean with 45330SP/01 Speed Prep Cleaner, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Abrade as necessary with 180 - 320 grit, finishing sanding with the finest grit possible
- Clean again with appropriate cleaner.
- Apply 2 full wet coats, allowing proper flash time between coats.
- Allow 30 minutes to flash before topcoating.
- Topcoat per technical data sheet recommendations.

### White Epoxy Primer:

#### MAP-LVU100/01: *RTS 0.42 VOC*

- Clean with 45330SP/01 Speed Prep Cleaner, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Abrade as necessary with 180 - 320 grit, finishing sanding with the finest grit possible.
- Clean again with appropriate cleaner.
- Apply 1 to 2 full wet coats allowing proper flash time between coats.
- Allow 30 minutes (spraying) or 1.5 - 2.5 hours (brush/roll) before topcoating.
- Topcoat per technical data sheet recommendations.

### Gray Epoxy Primer:

#### 6007SP/01: *3.5 VOC*

- Clean with 45330SP/01 Speed Prep Cleaner, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Abrade as necessary with 180 - 320 grit, finishing sanding with the finest grit possible.
- Clean again with appropriate cleaner.
- Apply 2 full wet coats, allowing proper flash time between coats.
- Allow 45 minutes to flash before topcoating.
- Topcoat per technical data sheet recommendations.



# Steel Stainless

- Use proper Personal Protective Equipment (PPE) during sanding and product application.



## 2.1 Epoxy Primers:

### 274528SP/01 Gray • 274530SP/01 White • 274531SP/01 Black

- Clean with 45330SP/01 Speed Prep Cleaner, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Abrade as necessary with 80 grit, finishing sanding with the finest grit possible.
- Clean again with appropriate cleaner.
- Apply 1 to 2 full wet coats, allowing proper flash time between coats.
- Allow 30 minutes to flash before topcoating.
- Topcoat per technical data sheet recommendations.

# Powder Coated

- Use proper Personal Protective Equipment (PPE) during sanding and product application.



## 2.1 Epoxy Primers:

### 274528SP/01 Gray • 274530SP/01 White • 274531SP/01 Black

- Clean with 45330SP/01 Speed Prep Cleaner, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Abrade as necessary with 180 - 220 grit, finishing sanding with the finest grit possible.
- Clean again with appropriate cleaner.
- Apply 1 to 2 full wet coats, allowing proper flash time between coats.
- Allow 30 minutes to flash before topcoating.
- Topcoat per technical data sheet recommendations.

## White Epoxy Primer or Black Epoxy Primer:

### 274908SP/01 or 274808SP/01: *Both are RTS 3.90-3.95 VOC*

- Clean with 45330SP/01 Speed Prep Cleaner, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Abrade as necessary with 180 - 220 grit, finishing sanding with the finest grit possible.
- Clean again with appropriate cleaner.
- Apply 2 full wet coats, allowing proper flash time between coats.
- Allow 30 minutes to flash before topcoating.
- Topcoat per technical data sheet recommendations.

## White Epoxy Primer:

### MAP-LVU100/01: *RTS 0.42 VOC*

- Clean with 45330SP/01 Speed Prep Cleaner, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Abrade as necessary with 180 - 220 grit, finishing sanding with the finest grit possible.
- Clean again with appropriate cleaner.
- Apply 1 to 2 full wet coats allowing proper flash time between coats.
- Allow 30 minutes (spraying) or 1.5 - 2.5 hours (brush/roll) before topcoating.
- Topcoat per technical data sheet recommendations.



## Powder Coated (Continued):

### Gray Epoxy Primer:

**6007SP/01:** 3.5 VOC

- Clean with 45330SP/01 Speed Prep Cleaner, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Abrade as necessary with 180 - 220 grit, finishing sanding with the finest grit possible.
- Clean again with appropriate cleaner.
- Apply 2 full wet coats, allowing proper flash time between coats.
- Allow 45 minutes to flash before topcoating.
- Topcoat per technical data sheet recommendations.

## Steel or Aluminum Repairs

### Previously Primed and/or Painted Surfaces

- Use proper Personal Protective Equipment (PPE) during sanding and product application.
- Inspect existing coating for any delaminating or degradation to determine if existing coating should be removed. If so, repair or strip as necessary.



### 2.1 Epoxy Primers:

**274528SP/01 Gray • 274530SP/01 White • 274531SP/01 Black**

- Clean with 45330SP/01 Speed Prep Cleaner, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Abrade as necessary with 180 - 320 grit, finishing sanding with the finest grit possible.
- Clean again with appropriate cleaner.
- Apply 1 to 2 full wet coats, allowing proper flash time between coats.
- Allow 30 minutes to flash before topcoating.
- Topcoat per technical data sheet recommendations.

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### White Epoxy Primer or Black Epoxy Primer:

**274908SP/01 or 274808SP/01:** *Both are RTS 3.90-3.95 VOC*

- Clean with 45330SP/01 Speed Prep Cleaner, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Abrade as necessary with 180 - 320 grit, finishing sanding with the finest grit possible
- Clean again with appropriate cleaner.
- Apply 2 full wet coats, allowing proper flash time between coats.
- Allow 30 minutes to flash before topcoating.
- Topcoat per technical data sheet recommendations.

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# Steel or Aluminum Repairs (Continued)

## Polyester Primer Surfacer:

### 6001SP/01: *RTS 1.8 VOC*

- Clean with 45330SP/01 Speed Prep Cleaner, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Abrade as necessary with 180 - 320 grit, finishing sanding with the finest grit possible.
- Clean again with appropriate cleaner.
- Mix Polyester Primer Surfacer according to instructions (see text box).
- Apply 2 full wet coats, allowing proper flash time between coats.
- Apply additional coats as necessary to achieve desired filling.
- Allow 1.5 hours dry time before sanding, cleaning and topcoating.
- Topcoat per technical data sheet recommendations.

When spraying 6001SP/01 Polyester Primer Surfacer, it is important to refer to the technical sheets for spray tip details. We recommend the use of a 2.0 tip or larger in the spray gun. When activated, mix thoroughly and apply immediately. Clean equipment immediately.

## U-Prime:

### 274685SP/01: *RTS 2.8 or 3.5 VOC*

- Clean with 45330SP/01 Speed Prep Cleaner, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Abrade as necessary with 180 - 320 grit, finishing sanding with the finest grit possible.
- Clean again with appropriate cleaner.
- Apply 2 full wet coats, allowing proper flash time between coats.
- Allow 30 minutes to flash before topcoating.
- Topcoat per technical data sheet recommendations.

## White Epoxy Primer:

### MAP-LVU100/01: *RTS 0.42 VOC*

- Clean with 45330SP/01 Speed Prep Cleaner, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Abrade as necessary with 180 - 320 grit, finishing sanding with the finest grit possible.
- Clean again with appropriate cleaner.
- Apply 1 to 2 full wet coats allowing proper flash time between coats.
- Allow 30 minutes (spraying) or 1.5 - 2.5 hours (brush/roll) before topcoating.
- Topcoat per technical data sheet recommendations.

## Gray Epoxy Primer:

### 6007SP/01: *3.5 VOC*

- Clean with 45330SP/01 Speed Prep Cleaner, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Abrade as necessary with 180 - 320 grit, finishing sanding with the finest grit possible.
- Clean again with appropriate cleaner.
- Apply 2 full wet coats, allowing proper flash time between coats.
- Allow 45 minutes to flash before topcoating.
- Topcoat per technical data sheet recommendations.

# Painted Surfaces Matthews or Unidentified Finishes

- Use proper Personal Protective Equipment (PPE) during sanding and product application.
- Always test painted surface for compatibility before use of Matthews primers and topcoats.
- Inspect existing coating for any delaminating or degradation to determine if existing coating should be removed. If so, repair or strip as necessary.



## Matthews Topcoat Option (No Primer):

If existing finish is fully cured and sound, Matthews Topcoat can be applied directly without primer.

- Clean with 45330SP/01 Speed Prep Cleaner, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Abrade as necessary with 220 - 320 grit or a scuff pad, finishing sanding with the finest grit possible.
- Clean again with appropriate cleaner.
- Important: if bare substrate has been exposed, an appropriate Matthews Primer must be applied before topcoating.
- Topcoat per technical data sheet recommendations.

## 2.1 Epoxy Primers:

### 274528SP/01 Gray • 274530SP/01 White • 274531SP/01 Black

- Clean with 45330SP/01 Speed Prep Cleaner, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Abrade as necessary with 180 - 320 grit, finishing sanding with the finest grit possible.
- Clean again with appropriate cleaner.
- Apply 1 to 2 full wet coats, allowing proper flash time between coats.
- Allow 30 minutes to flash before topcoating.
- Topcoat per technical data sheet recommendations.

## White Epoxy Primer or Black Epoxy Primer:

### 274908SP/01 or 274808SP/01: *Both are RTS 3.90-3.95 VOC*

- Clean with 45330SP/01 Speed Prep Cleaner, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Abrade as necessary with 180 - 320 grit, finishing sanding with the finest grit possible
- Clean again with appropriate cleaner.
- Apply 2 full wet coats, allowing proper flash time between coats.
- Allow 30 minutes to flash before topcoating.
- Topcoat per technical data sheet recommendations.

## White Epoxy Primer:

### MAP-LVU100/01: *RTS 0.42 VOC*

- Clean with 45330SP/01 Speed Prep Cleaner, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Abrade as necessary with 180 - 320 grit, finishing sanding with the finest grit possible.
- Clean again with appropriate cleaner.
- Apply 1 to 2 full wet coats allowing proper flash time between coats.
- Allow 30 minutes (spraying) or 1.5 - 2.5 hours (brush/roll) before topcoating.
- Topcoat per technical data sheet recommendations.

## Gray Epoxy Primer:

### 6007SP/01: *3.5 VOC*

- Clean with 45330SP/01 Speed Prep Cleaner, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Abrade as necessary with 180 - 320 grit, finishing sanding with the finest grit possible.
- Clean again with appropriate cleaner.
- Apply 2 full wet coats, allowing proper flash time between coats.
- Allow 45 minutes to flash before topcoating.
- Topcoat per technical data sheet recommendations.



# Acrylic

- Use proper Personal Protective Equipment (PPE) during product application.
- 6405SP/01 or 6410SP/01 can be used as cleaners in VOC regulated areas but will not provide the same anti-static properties of the non-compliant 6428SP/01 Plastic Prep.
- Matthews strongly recommends the use of Tie Bond as an adhesive over acrylics to ensure proper adhesion.



## Tie Bond Adhesive:

### 274777SP/01: RTS 0 VOC

- Clean with 6428SP/01 Plastic Prep, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Apply a mist coat of 6428SP/01 Plastic Prep and allow to dry in order to reduce static surface charge.
- Apply 2 -3 medium wet coats, allowing proper flash time between coats.
- Allow 5-10 minutes to flash before topcoating.
- Topcoat per technical data sheet recommendations.

## Tie Bond Adhesive:

### 74777SP/01: RTS 6.4 - 6.6 VOC

- Clean with 6428SP/01 Plastic Prep, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Apply a mist coat of 6428SP Plastic Prep and allow to dry in order to reduce static surface charge.
- Apply 2 -3 medium wet coats, allowing proper flash time between coats.
- Allow 5-10 minutes to flash before topcoating.
- Topcoat per technical data sheet recommendations.

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# Acrylic Laser-cut, Router-cut, Flame-treated

- Use proper Personal Protective Equipment (PPE) during product application.
- 6405SP/01 or 6410SP/01 can be used as cleaners in VOC regulated areas but will not provide the same anti-static properties of the non-compliant 6428SP/01 Plastic Prep.
- 6428SP/01 may be too aggressive for laser-cut acrylic.
- Matthews strongly recommends the use of Tie Bond as an adhesive over acrylics to ensure proper adhesion.
- To avoid crazing on edges of laser-cut acrylic, use a lower temperature setting.



## Tie Bond Adhesive:

### 274777SP/01: RTS 0 VOC

- Clean with 6405SP/01 Low VOC Cleaner or 6410SP/01 Low VOC PreCleaner.
- Apply a mist coat of 6428SP/01 Plastic Prep and allow to dry in order to reduce static surface charge.
- Apply 2 -3 medium wet coats, allowing proper flash time between coats.
- Allow 5-10 minutes to flash before topcoating.
- Topcoat per technical data sheet recommendations.



# Acrylonitrile Butadiene Styrene (ABS)

## Banner Up

- Use proper Personal Protective Equipment (PPE) during product application.
- 6405SP/01 or 6410SP/01 can be used as cleaners in VOC regulated areas but will not provide the same anti-static properties of the non-compliant 6428SP/01 Plastic Prep.



## Matthews Topcoat:

- Clean with 6428SP/01 Plastic Prep, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Topcoat per technical data sheet recommendations.

## Body Filler

- Use proper Personal Protective Equipment (PPE) during sanding and product application.



## Polyester Primer Surfacer:

### 6001SP/01: *RTS 1.8 VOC*

- Block sand body filler as necessary with 80-180 grit, finishing sanding with the finest grit possible.
- Clean area surrounding the repair\* with 45330SP/01 Speed Prep Cleaner, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Sand or scuff areas around repair as necessary with 180 -320 grit, finishing sanding with the finest grit possible.
- Clean area surrounding the repair\* again with appropriate cleaner.
- Mix Polyester Primer Surfacer according to instructions (see text box).
- Apply 2 full wet coats, allowing proper flash time between coats.
- Apply additional coats as necessary to achieve desired filling.
- Allow 1.5 hours dry time before block sanding with 220-320 grit and recleaning
- Apply epoxy primer or urethane primer followed by topcoat per technical data sheet recommendations.

\*NOTE: Cleaner should never come in contact with body filler.

When spraying 6001SP/01 Polyester Primer Surfacer, it is important to refer to the technical sheets for spray tip details. We recommend the use of a 2.0 tip or larger in the spray gun. When activated, mix thoroughly and apply immediately. Clean equipment immediately.



# PVC Expanded and Non Expanded (Komatex, Sintra, Celtec, Intacel, EX-Cel, and Trovicel)



- Use proper Personal Protective Equipment (PPE) during sanding and product application.
- 6405SP/01 or 6410SP/01 can be used as cleaners in VOC regulated areas but will not provide the same anti-static properties of the non-compliant 6428SP/01 Plastic Prep.
- For exterior application, it is important to completely encapsulate the entire PVC substrate to prevent warping.

## If Side Fill is required, apply 6001SP Polyester Primer Surfacer on rough sides prior to topcoating:

- Using a roller, apply 1-3 coats of 6001SP/01 Polyester Primer Surfacer on rough side sections only (do not apply 6001SP/01 to face of the PVC).
- Allow 1.5 hours to dry.
- Sand to desired smoothness.
- Clean with 6405SP/01 Low VOC Cleaner or 6410SP/01 Low VOC PreCleaner.
- Apply Tie Bond Adhesive as per technical data sheet recommendations.
- Topcoat per technical data sheet recommendations.

## Tie Bond Adhesive:

### 274777SP/01: RTS 0 VOC

- Clean with 6428SP/01 Plastic Prep, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Apply a mist coat of 6428SP/01 Plastic Prep and allow to dry in order to reduce static surface charge.
- Apply 2 -3 medium wet coats, allowing proper flash time between coats.
- Allow 5-10 minutes to flash before topcoating.
- Topcoat per technical data sheet recommendations.

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## Tie Bond Adhesive:

### 74777SP/01: RTS 6.4 - 6.6 VOC

- Clean with 6428SP/01 Plastic Prep, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Apply a mist coat of 6428SP/01 Plastic Prep and allow to dry in order to reduce static surface charge.
- Apply 2 -3 medium wet coats, allowing proper flash time between coats.
- Allow 5-10 minutes to flash before topcoating.
- Topcoat per technical data sheet recommendations.

# Photopolymer Nova Polymers (NovAcryl PT and NovAcryl ECR-3)



- Use proper Personal Protective Equipment (PPE) during product application.
- 6405SP/01 or 6410SP/01 can be used as cleaners in VOC regulated areas but will not provide the same anti-static properties of the non-compliant 6428SP/01 Plastic Prep.



## Photopolymer (Continued):

### First Surface Painting (Tie Bond not needed):

- Clean with 6428SP/01 Plastic Prep, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner using a short-bristled brush.
- While surface is still wet, blow dry with compressed air.
- Apply a mist coat of 6428SP/01 Plastic Prep and allow to dry in order to reduce static surface charge.
- Topcoat or Clearcoat directly per technical data sheet recommendations.

### Optional Second Surface Painting of NovAcryl PT (Tie Bond not needed):

- Clean with 6428SP/01 Plastic Prep, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner using a short-bristled brush.
- While surface is still wet, blow dry with compressed air.
- Apply a mist coat of 6428SP/01 Plastic Prep and allow to dry in order to reduce static surface charge.
- Topcoat second surface directly per technical data sheet recommendations.
- Important! When applying paint to second surface NovAcryl PT, you must clearcoat the first surface to protect the photopolymer. Apply clearcoat per technical data sheet recommendations.

## Photopolymer Nova Polymers (NovAcryl LP, NovAcryl AL and Permaglow)

- Use proper Personal Protective Equipment (PPE) during product application.
- 6405SP/01 or 6410SP/01 can be used as cleaners in VOC regulated areas but will not provide the same anti-static properties of the non-compliant 6428SP/01 Plastic Prep.



### First Surface Coating (Tie Bond not needed):

- Clean with 6428SP/01 Plastic Prep, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner using a short-bristled brush.
- While surface is still wet, blow dry with compressed air.
- Apply a mist coat of 6428SP Plastic Prep and allow to dry in order to reduce static surface charge.
- Clearcoat directly per technical data sheet recommendations.

## Photopolymer Nova Polymers (NovAcryl EX)

- Use proper Personal Protective Equipment (PPE) during sanding and product application.



### Non-Chromate Etch Primer:

#### 74350SP/01: *RTS 3.5 VOC*

- Clean with a household all-purpose cleaner while gently scrubbing with a short-bristled brush.
- Rinse thoroughly with clean water.
- While surface is still wet, blow dry with compressed air.
- Apply a mist coat of 6428SP/01 Plastic Prep and allow to dry in order to reduce static surface charge.
- Apply 1 full wet coat 74350SP/01 Non-Chromate Etch Primer only.
- Allow 30 minutes to flash before topcoating.
- Topcoat per technical data sheet recommendations.



# Photopolymer Jet

- Use proper Personal Protective Equipment (PPE) during product application.
- 6405SP/01 or 6410SP/01 can be used as cleaners in VOC regulated areas but will not provide the same anti-static properties of the non-compliant 6428SP/01 Plastic Prep.



## Tie Bond Adhesive:

### 274777SP/01: RTS 0 VOC

- Clean with 6428SP/01 Plastic Prep, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Apply a mist coat of 6428SP/01 Plastic Prep and allow to dry in order to reduce static surface charge.
- Apply 2 -3 medium wet coats, allowing proper flash time between coats.
- Allow 5-10 minutes to flash before topcoating.
- Topcoat per technical data sheet recommendations.

## Tie Bond Adhesive:

### 74777SP/01: RTS 6.4 - 6.6 VOC

- Clean with 6428SP/01 Plastic Prep, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Apply a mist coat of 6428SP/01 Plastic Prep and allow to dry in order to reduce static surface charge.
- Apply 2 -3 medium wet coats, allowing proper flash time between coats.
- Allow 5-10 minutes to flash before topcoating.
- Topcoat per technical data sheet recommendations.

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# Copolyesters, PETG and Mustang (Plaskolite)

We do not recommend coating copolyesters and PETG substrates with Matthews.

## 3D Printing Massivit

- Use proper Personal Protective Equipment (PPE) during product application.
- 6405SP/01 or 6410SP/01 can be used as cleaners in VOC regulated areas but will not provide the same anti-static properties of the non-compliant 6428SP/01 Plastic Prep.



## Matthews Topcoat:

- Clean with 6428SP/01 Plastic Prep, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Topcoat per technical data sheet recommendations.



# Polycarbonate



- Use proper Personal Protective Equipment (PPE) during product application.
- Polycarbonate manufacturers recommend that all moisture be heat-purged out of substrate before coating application.
- Application of any primer, adhesive, or topcoat will alter this substrate's impact strength.
- 6405SP/01 or 6410SP/01 can be used as cleaners in VOC regulated areas but will not provide the same anti-static properties of the non-compliant 6428SP/01 Plastic Prep.
- 6428SP/01 may be too aggressive for polycarbonate.
- For translucent finishes, Lacryl 400 Series Translucent Spray Paint should be used (refer to Technical Data Sheet L400).

## Tie Bond Adhesive:

### 274777SP/01: *RTS 0 VOC*

- Clean with 6428SP/01 Plastic Prep, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Apply a mist coat of 6428SP/01 Plastic Prep and allow to dry in order to reduce static surface charge.
- Apply 2 -3 medium wet coats, allowing proper flash time between coats.
- Allow 5-10 minutes to flash before topcoating.
- Topcoat per technical data sheet recommendations.

## Tie Bond Adhesive:

### 74777SP/01: *RTS 6.4 - 6.6 VOC*

- Clean with 6428SP/01 Plastic Prep, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Apply a mist coat of 6428SP/01 Plastic Prep and allow to dry in order to reduce static surface charge.
- Apply 2 -3 medium wet coats, allowing proper flash time between coats.
- Allow 5-10 minutes to flash before topcoating.
- Topcoat per technical data sheet recommendations.

## Matthews Basecoat Option (No Tie Bond):

- Clean with 6428SP/01 Plastic Prep, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Apply a mist coat of 6428SP/01 Plastic Prep and allow to dry in order to reduce static surface charge.
- Apply 1 light coat of converted Matthews basecoat (SOA, N, or SVOC) as barrier coat (refer to technical data sheet for 287103SP/01 Low VOC Basecoat Converter).
- Allow 10-15 minutes to flash.
- Apply additional coats to achieve desired color and coverage.
- NOTE: For first surface painting, apply Clearcoat per technical data sheet recommendations.

Some Polycarbonates can be sensitive to crazing when using 74777SP/01 Tie Bond. Using Matthews converted basecoat (SOA, N, or SVOC) instead of 74777SP/01 is a less aggressive option.



# Vinyl



- Use proper Personal Protective Equipment (PPE) during product application.
- 6405SP/01 or 6410SP/01 can be used as cleaners in VOC regulated areas but will not provide the same anti-static properties of the non-compliant 6428SP/01 Plastic Prep.
- Flex additive is not required when applying Matthews Topcoat to completed pre-applied vinyl.

## Tie Bond Adhesive:

### 274777SP/01: *RTS 0 VOC*

- Clean with 6428SP/01 Plastic Prep, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Apply 2 -3 medium wet coats, allowing proper flash time between coats.
- Allow 5-10 minutes to flash before topcoating.
- SOA, N, or SVOC topcoat: mix with 47474SP/04 Flex Additive per technical data sheet recommendations.
- MAP-LV topcoats do not require flex additive.
- Topcoat per technical data sheet recommendations.

## Tie Bond Adhesive:

### 74777SP/01: *RTS 6.4 - 6.6 VOC*

- Clean with 6428SP/01 Plastic Prep, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Apply 2 -3 medium wet coats, allowing proper flash time between coats.
- Allow 5-10 minutes to flash before topcoating.
- SOA, N, or SVOC topcoat: mix with 47474SP/04 Flex Additive per technical data sheet recommendations.
- MAP-LV topcoats do not require flex additive.
- Topcoat per technical data sheet recommendations.

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## Matthews Topcoat Option (No Tie Bond):

- Clean with 6428SP/01 Plastic Prep, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Abrade with scuff pad.
- Clean again with appropriate cleaner.
- Topcoat per technical data sheet recommendations.



# Trim Cap Jewelite



- Use proper Personal Protective Equipment (PPE) during product application.
- 6405SP/01 or 6410SP/01 can be used as cleaners in VOC regulated areas but will not provide the same anti-static properties of the non-compliant 6428SP/01 Plastic Prep.
- Flex additive is not required when applying Matthews Topcoat to completed pre-applied trim cap.

## Tie Bond Adhesive:

### 274777SP/01: *RTS 0 VOC*

- Clean with 6428SP/01 Plastic Prep, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Apply 2 -3 medium wet coats, allowing proper flash time between coats.
- Allow 5-10 minutes to flash before topcoating.
- SOA, N, or SVOC topcoat: mix with 47474SP/04 Flex Additive per technical data sheet recommendations.
- MAP-LV topcoats do not require flex additive.
- Topcoat per technical data sheet recommendations.

## Tie Bond Adhesive:

### 74777SP/01: *RTS 6.4 - 6.6 VOC*

- Clean with 6428SP/01 Plastic Prep, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Apply 2 -3 medium wet coats, allowing proper flash time between coats.
- Allow 5-10 minutes to flash before topcoating.
- SOA, N, or SVOC topcoat: mix with 47474SP/04 Flex Additive per technical data sheet recommendations.
- MAP-LV topcoats do not require flex additive.
- Topcoat per technical data sheet recommendations.

# EPS-Polystyrene Gator Foam



- Use proper Personal Protective Equipment (PPE) during sanding and product application.

## Acrylic Latex Primer:

- Clean substrate with clean compressed air.
- Apply latex exterior primer in order to fill and seal the entire foam surface areas.
- Allow to dry for at least 60 minutes.
- Scuff surface with scuff pad.
- Clean 6405SP/01 Low VOC Cleaner or 6410SP/01 Low VOC PreCleaner.
- Topcoat per technical data sheet recommendations.



# Flexible Face (Cooley)

- Use proper Personal Protective Equipment (PPE) during product application.
- 6405SP/01 or 6410SP/01 can be used as cleaners in VOC regulated areas but will not provide the same anti-static properties of the non-compliant 6428SP/01 Plastic Prep.



## Tie Bond Adhesive:

### 274777SP/01: RTS 0 VOC

- Clean with 6428SP/01 Plastic Prep, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Apply 2 -3 medium wet coats, allowing proper flash time between coats.
- Allow 5-10 minutes to flash before topcoating.
- SOA, N, or SVOC topcoat: mix with 47474SP/04 Flex Additive per technical data sheet recommendations.
- MAP-LV topcoats do not require flex additive.
- Topcoat per technical data sheet recommendations.

## Tie Bond Adhesive:

### 74777SP/01: RTS 6.4 - 6.6 VOC

- Clean with 6428SP/01 Plastic Prep, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Apply 2 -3 medium wet coats, allowing proper flash time between coats.
- Allow 5-10 minutes to flash before topcoating.
- SOA, N, or SVOC topcoat: mix with 47474SP/04 Flex Additive per technical data sheet recommendations.
- MAP-LV topcoats do not require flex additive.
- Topcoat per technical data sheet recommendations.

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# Polypropylene and Polyethylene

- Requires Flame or Corona treatment in order to alter the surface molecular structure, which allows a limited time period for the substrate to be paint receptive. All propylene and ethylene structures are different, so test for adhesion.
- Clean with 6428SP/01 Plastic Prep.
- Topcoat per technical data sheet recommendations.

 Extremely difficult to paint even when flame or corona treatment process is used.

# Glass and Porcelain

We do not recommend coating glass or porcelain with Matthews.



# Wood (Including MDO, MDF, and Extira)



- Use proper Personal Protective Equipment (PPE) during sanding and product application.
- Certain applications using exterior wood as a substrate will expand and/or contract too much for Matthews to be used.
- For exterior application, it is important to completely encapsulate the entire substrate to prevent moisture penetration.

## General Cleaning and Preparation Steps:

- Test moisture level of substrate. Moisture level should be less than 13%.
- Remove debris with clean compressed air.
- Abrade as necessary with 180 - 320 grit, finishing sanding with the finest grit possible.
- Remove dust with clean compressed air and tack rag.
- If heavy filling/blocking is required to fill grain, knots, or other imperfections, 6001SP/01 Polyester Primer Surfacer provides the most fill. Otherwise, any Matthew Epoxy primer can be used.

## Polyester Primer Surfacer:

### 6001SP/01: *RTS 1.8 VOC*

- Blow off substrate with clean compressed air.
- Mix Polyester Primer Surfacer according to instructions (see text box).
- Apply 2 full wet coats, allowing proper flash time between coats.
- Apply additional coats as necessary to achieve desired filling.
- Allow 1.5 hours dry time before sanding with 220-320 grit.
- Clean\* with 45330SP/01 Speed Prep, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Apply epoxy primer or urethane primer followed by topcoat per technical data sheet recommendations.

\*NOTE: Cleaner should never come in contact with exposed wood.

When spraying 6001SP/01 Polyester Primer Surfacer, it is important to refer to the technical sheets for spray tip details. We recommend the use of a 2.0 tip or larger in the spray gun. When activated, mix thoroughly and apply immediately. Clean equipment immediately.

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## U-Prime:

### 274685SP/01: *RTS 2.8 VOC*

- Blow off substrate with clean compressed air.
- Apply 2 full wet coats, allowing proper flash time between coats.
- Apply additional coats as necessary to achieve desired filling.
- Allow 16 hours dry time before sanding with 220-320 grit.
- Clean\* with 45330SP/01 Speed Prep, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Apply epoxy primer or urethane primer followed by topcoat per technical data sheet recommendations.

\*NOTE: Cleaner should never come in contact with exposed wood.

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## Wood (Continued) (Including MDO, MDF, and Extira)

### White Epoxy Primer or Black Epoxy Primer:

**274908SP/01 or 274808SP/01:** *Both are RTS 3.90-3.95 VOC*

- Blow off substrate with clean compressed air.
- Apply 2 full wet coats, allowing proper flash time between coats.
- Apply additional coats as necessary to achieve total dry film thickness.
- Allow 30 minutes to flash before topcoating.
- Topcoat per technical data sheet recommendations.

### Gray Epoxy Primer:

**6007SP/01:** *3.5 VOC*

- Blow off substrate with clean compressed air.
- Apply 2 full wet coats, allowing proper flash time between coats.
- Apply additional coats as necessary to achieve total dry film thickness.
- Allow 45 minutes to flash before topcoating.
- Topcoat per technical data sheet recommendations.

### White Epoxy Primer:

**MAP-LVU100/01:** *RTS 0.42 VOC*

- Blow off substrate with clean compressed air.
- Apply 1 to 2 full wet coats allowing proper flash time between coats.
- Allow 30 minutes (spraying) or 1.5 - 2.5 hours (brush/roll) before topcoating.
- Topcoat per technical data sheet recommendations.

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### 2.1 Epoxy Primers:

**274528SP/01 Gray • 274530SP/01 White • 274531SP/01 Black**

- Blow off substrate with clean compressed air.
- Apply 1 to 2 full wet coats, allowing proper flash time between coats.
- Allow 30 minutes to flash before topcoating.
- Topcoat per technical data sheet recommendations.

## Scooter Board

- Use proper Personal Protective Equipment (PPE) during sanding and product application.



### Tie Bond Adhesive:

**274777SP/01:** *RTS 0 VOC*

- Remove dust with clean compressed air and tack rag.
- Abrade as necessary with 220 -320 grit, finishing sanding with the finest grit possible.
- Remove dust with clean compressed air and tack rag.
- Apply 2 -3 medium wet coats, allowing proper flash time between coats.
- Allow 5-10 minutes to flash before topcoating.
- Topcoat per technical data sheet recommendations.



## Scooter Board (Continued)

### Tie Bond Adhesive:

**74777SP/01:** *RTS 6.4 - 6.6 VOC*

- Remove dust with clean compressed air and tack rag.
- Abrade as necessary with 220 -320 grit, finishing sanding with the finest grit possible.
- Remove dust with clean compressed air and tack rag.
- Apply 2 -3 medium wet coats, allowing proper flash time between coats.
- Allow 5-10 minutes to flash before topcoating.
- Topcoat per technical data sheet recommendations.

## Fiberglass Non Gel-Coated (Raw)

- Use proper Personal Protective Equipment (PPE) during sanding and product application.



### Polyester Primer Surfacer:

**6001SP/01:** *RTS 1.8 VOC*

- Remove dust with clean compressed air and tack rag.
- Abrade as necessary with 180 -320 grit, finishing sanding with the finest grit possible.
- Remove dust with clean compressed air and tack rag.
- Mix Polyester Primer Surfacer according to instructions (see text box).
- Apply 2 full wet coats, allowing proper flash time between coats.
- Apply additional coats as necessary to achieve desired filling.
- Allow 1.5 hours dry time before sanding, cleaning and topcoating.
- Topcoat per technical data sheet recommendations.

When spraying 6001SP/01 Polyester Primer Surfacer, it is important to refer to the technical sheets for spray tip details. We recommend the use of a 2.0 tip or larger in the spray gun. When activated, mix thoroughly and apply immediately. Clean equipment immediately.

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### White Epoxy Primer or Black Epoxy Primer:

**274908SP/01 or 274808SP/01:** *Both are RTS 3.90-3.95 VOC*

- Remove dust with clean compressed air and tack rag.
- Abrade as necessary with 180 -320 grit, finishing sanding with the finest grit possible.
- Remove dust with clean compressed air and tack rag.
- Apply 2 full wet coats, allowing proper flash time between coats.
- Apply additional coats as necessary to achieve total dry film thickness.
- Allow 24 hours dry time before sanding, cleaning and topcoating.
- Topcoat per technical data sheet recommendations.



# Fiberglass Gel-Coated

- Use proper Personal Protective Equipment (PPE) during sanding and product application.
- 6405SP/01 or 6410SP/01 can be used as cleaners in VOC regulated areas but will not provide the same anti-static properties of the non-compliant 6428SP/01 Plastic Prep.
- All mold release agent must be removed prior to sanding. Multiple cleaning steps may be required.



## Matthews Topcoat:

- Thoroughly clean with 6428SP/01 Plastic Prep, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Abrade as necessary using 320-400 grit, finishing sanding with the finest grit possible.
- Clean again with appropriate cleaner.
- Topcoat per technical data sheet recommendations.

If primer is needed, apply any Matthews Epoxy Primer per technical data sheet recommendations.

# HDU or Polyurethane Foam Board

## Poly Board, Sign Foam, Precision Board, Jasper Board, Corafoam®/Dunaboard

- Use proper Personal Protective Equipment (PPE) during sanding and product application.



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## Polyester Primer Surfacer:

### 6001SP/01: *RTS 1.8 VOC*

- Blow off substrate with clean compressed air.
- Mix Polyester Primer Surfacer according to instructions (see text box).
- Apply 2 full wet coats, allowing proper flash time between coats.
- Apply additional coats as necessary to achieve desired filling.
- Allow 1.5 hours dry time before sanding with 220-320 grit.
- Clean\* with 45330SP/01 Speed Prep, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Apply epoxy primer or urethane primer followed by topcoat per technical data sheet recommendations.

\*NOTE: Cleaner should never come in contact with exposed foam.

When spraying 6001SP/01 Polyester Primer Surfacer, it is important to refer to the technical sheets for spray tip details. We recommend the use of a 2.0 tip or larger in the spray gun. When activated, mix thoroughly and apply immediately. Clean equipment immediately.

## U-Prime:

### 274685SP/01: *RTS 2.8 VOC*

- Blow off substrate with clean compressed air.
- Apply 2 full wet coats, allowing proper flash time between coats.
- Apply additional coats as necessary to achieve desired filling.
- Allow 16 hours dry time before sanding with 220-320 grit.
- Clean\* with 45330SP/01 Speed Prep, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Apply epoxy primer or urethane primer followed by topcoat per technical data sheet recommendations.

\*NOTE: Cleaner should never come in contact with exposed foam.



# Granite

- Use proper Personal Protective Equipment (PPE) during sanding and product application.



## 2.1 Epoxy Primers:

### 274528SP/01 Gray • 274530SP/01 White • 274531SP/01 Black

- Clean with 45330SP/01 Speed Prep Cleaner, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Sandblast or abrade as necessary with 180 -320 grit, finishing sanding with the finest grit possible.
- Clean again with appropriate cleaner (for sandblasted granite, blow off with clean compressed air only).
- Apply 1 to 2 full wet coats, allowing proper flash time between coats.
- Allow 30 minutes to flash before topcoating.
- Topcoat per technical data sheet recommendations.

### White Epoxy Primer or Black Epoxy Primer:

#### 274908SP/01 or 274808SP/01: *Both are RTS 3.90-3.95 VOC*

- Clean with 45330SP/01 Speed Prep Cleaner, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Sandblast or abrade as necessary with 180 -320 grit, finishing sanding with the finest grit possible.
- Clean again with appropriate cleaner (for sandblasted granite, blow off with clean compressed air only).
- Apply 2 full wet coats, allowing proper flash time between coats.
- Allow 30 minutes to flash before topcoating.
- Topcoat per technical data sheet recommendations.

### White Epoxy Primer:

#### MAP-LVU100/01: *RTS 0.42 VOC*

- Clean with 45330SP/01 Speed Prep Cleaner, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Sandblast or abrade as necessary with 180 -320 grit, finishing sanding with the finest grit possible.
- Clean again with appropriate cleaner (for sandblasted granite, blow off with clean compressed air only).
- Apply 1 to 2 full wet coats, allowing proper flash time between coats.
- Allow 30 minutes to flash before topcoating.
- Topcoat per technical data sheet recommendations.

### Gray Epoxy Primer:

#### 6007SP/01: *3.5 VOC*

- Clean with 45330SP/01 Speed Prep Cleaner, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Sandblast or abrade as necessary with 180 -320 grit, finishing sanding with the finest grit possible.
- Clean again with appropriate cleaner (for sandblasted granite, blow off with clean compressed air only).
- Apply 2 full wet coats, allowing proper flash time between coats.
- Allow 45 minutes to flash before topcoating.
- Topcoat per technical data sheet recommendations.



# Cement Bare

- Use proper Personal Protective Equipment (PPE) during preparation and product application.



## General Cleaning and Preparation Steps:

- Pay careful attention to these instructions, as they are very important to follow properly!
- Pressure-clean entire surface with 2000 PSI at 3-5 GPM (Gallons Per Minute).
- Clean with 5% Muriatic acid and water solution. (Use recommended safety instructions from Muriatic acid manufacturer!)
- Rinse well with water and allow to dry.
- Remove debris with compressed air.
- Test PH level of substrate. Proper PH level must be less than 10 and higher than 5, neutral is 7 and preferred. (PH test pencils can be purchased at <http://www.cole-palmer.com>)
- Test moisture level of substrate. Moisture level should be less than 13%.
- Important: Failure to ensure that moisture and PH levels are within recommended limits will result in apparent or eventual coating failure.
- Apply Primer and Topcoat per recommendations below.

## 2.1 Epoxy Primers:

### 274528SP/01 Gray • 274530SP/01 White • 274531SP/01 Black

- Apply 1 to 2 full wet coats, allowing proper flash time between coats.
- Allow 30 minutes to flash before topcoating.
- Topcoat per technical data sheet recommendations.

### White Epoxy Primer or Black Epoxy Primer:

#### 274908SP/01 or 274808SP/01: *Both are RTS 3.90-3.95 VOC*

- Apply 2 full wet coats, allowing proper flash time between coats.
- Allow 30 minutes to flash before topcoating.
- Topcoat per technical data sheet recommendations.

### White Epoxy Primer:

#### MAP-LVU100/01: *RTS 0.42 VOC*

- Apply 1 to 2 full wet coats, allowing proper flash time between coats.
- Allow 30 minutes to flash before topcoating.
- Topcoat per technical data sheet recommendations.

### Gray Epoxy Primer:

#### 6007SP/01: *3.5 VOC*

- Apply 2 full wet coats, allowing proper flash time between coats.
- Allow 45 minutes to flash before topcoating.
- Topcoat per technical data sheet recommendations.



# Clearcoat Preparation Recommendations

## Matthews Topcoat (Color)

- Use proper Personal Protective Equipment (PPE) during sanding and product application.



Immediately following the application of Matthews Topcoat:

- Allow topcoat 15 minutes to flash.
- Apply 2 full wet coats of Matthews Clear, allowing proper flash time between coats.

If topcoat is allowed to dry more than 24 hours:

- Clean with appropriate Matthews cleaner.
- Lightly dry scuff sand with 320 - 400g by hand/machine or wet sand with 600g.
- Clean again with appropriate cleaner.
- Apply 2 full wet coats of Matthews Clear, allowing proper flash time between coats.

## Aluminum, Brass, Copper, or Bronze

- Use proper Personal Protective Equipment (PPE) during sanding and product application.
- Chamfer or knock down all sharp edges before applying Spray Bond.
- For Brass and Copper, 42260SP/01 and 282260SP/01 Braco Clears contain an anti-tarnish agent.



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### Spray Bond Adhesive:

**274793SP/01:** *RTS 0 VOC*

- Clean with 45330/01 Speed Prep, 6405SP/01 Low VOC Cleaner or 6410SP/01 Low VOC PreCleaner.
- Apply 2 -3 light to medium coats, allowing proper flash time between coats.
- Allow 5-10 minutes to flash before clearcoating.
- Clearcoat per technical data sheet recommendations.



# Acrylic



- Use proper Personal Protective Equipment (PPE) during product application.
- 6405SP/01 or 6410SP/01 can be used as cleaners in VOC regulated areas but will not provide the same anti-static properties of the non-compliant 6428SP/01 Plastic Prep.
- 6428SP/01 may be too aggressive for laser-cut acrylic.

## Tie Bond Adhesive:

### 274777SP/01: RTS 0 VOC

- Clean with 6428SP/01 Plastic Prep, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Apply a mist coat of 6428SP/01 Plastic Prep and allow to dry in order to reduce static surface charge.
- Apply 2 -3 medium wet coats, allowing proper flash time between coats.
- Allow 5 - 10 minutes to flash before clearcoating.
- Clearcoat per technical data sheet recommendations.

Laser-cut, Router-cut, and Flame-treated acrylics can be susceptible to crazing on the edges. Use lower temperature settings if possible and prime with 274777SP/01 Tie Bond only.

## Tie Bond Adhesive:

### 74777SP/01: RTS 6.4 - 6.6 VOC

- Clean with 6428SP/01 Plastic Prep, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Apply a mist coat of 6428SP/01 Plastic Prep and allow to dry in order to reduce static surface charge.
- Apply 2 -3 medium wet coats, allowing proper flash time between coats.
- Allow 5 - 10 minutes to flash before clearcoating.
- Clearcoat per technical data sheet recommendations.



# Polycarbonate



- Use proper Personal Protective Equipment (PPE) during product application.
- Polycarbonate manufacturers recommend that all moisture be heat-purged out of substrate before coating application.
- Application of any primer, adhesive, or topcoat will alter this substrate's impact strength.
- 6405SP/01 or 6410SP/01 can be used as cleaners in VOC regulated areas but will not provide the same anti-static properties of the non-compliant 6428SP/01 Plastic Prep.
- 6428SP/01 may be too aggressive for polycarbonate.

## Tie Bond Adhesive:

### 274777SP/01: *RTS 0 VOC*

- Clean with 6428SP/01 Plastic Prep, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Apply a mist coat of 6428SP/01 Plastic Prep and allow to dry in order to reduce static surface charge.
- Apply 2 -3 medium wet coats, allowing proper flash time between coats.
- Allow 5 - 10 minutes to flash before clearcoating.
- Clearcoat per technical data sheet recommendations.

## Tie Bond Adhesive:

### 74777SP/01: *RTS 6.4 - 6.6 VOC*

- Clean with 6428SP/01 Plastic Prep, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Apply a mist coat of 6428SP/01 Plastic Prep and allow to dry in order to reduce static surface charge.
- Apply 2 -3 medium wet coats, allowing proper flash time between coats.
- Allow 5-10 minutes to flash before clearcoating.
- Clearcoat per technical data sheet recommendations.

## Matthews Converted Clearcoat Option (No Tie Bond):

- Clean with 6428SP/01 Plastic Prep, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Apply a mist coat of 6428SP/01 Plastic Prep and allow to dry in order to reduce static surface charge.
- Apply 1 light coat of converted Matthews clear (conventional or Low VOC\*) as barrier coat (refer to technical data sheet for 287103SP/01 Low VOC Basecoat Converter).
- Allow 10-15 minutes to flash.
- Apply clearcoat per technical data sheet recommendations.

\*287103SP/01 is not to be used in MAP-LV Ultra Low clearcoats

Some Polycarbonates can be sensitive to crazing when using Tie Bond. Using Matthews converted clearcoats (excluding MAP-LVC clearcoats) instead of 74777SP/01 is a less aggressive option.



# Vinyl



- Use proper Personal Protective Equipment (PPE) during product application.
- 6405SP/01 or 6410SP/01 can be used as cleaners in VOC regulated areas but will not provide the same anti-static properties of the non-compliant 6428SP/01 Plastic Prep.
- Flex additive is not required when applying Matthews Topcoat to completed pre-applied vinyl.

## Tie Bond Adhesive:

### 274777SP/01: *RTS 0 VOC*

- Clean with 6428SP/01 Plastic Prep, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Apply 2 -3 medium wet coats, allowing proper flash time between coats.
- Allow 5-10 minutes to flash before clearcoating.
- Conventional or Low VOC clears: mix with 47474SP/01 Flex Additive per technical data sheet recommendations.
- MAP-LV topcoats do not require flex additive.
- Clearcoat per technical data sheet recommendations.

## Tie Bond Adhesive:

### 74777SP/01: *RTS 6.4 - 6.6 VOC*

- Clean with 6428SP/01 Plastic Prep, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Apply 2 -3 medium wet coats, allowing proper flash time between coats.
- Allow 5 - 10 minutes to flash before clearcoating.
- Conventional or Low VOC clears: mix with 47474SP/01 Flex Additive per technical data sheet recommendations.
- MAP-LV topcoats do not require flex additive.
- Clearcoat per technical data sheet recommendations.

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## Matthews Clearcoat Option (No Tie Bond):

- Clean with 6428SP/01 Plastic Prep, 6405SP/01 Low VOC Cleaner, or 6410SP/01 Low VOC PreCleaner.
- Abrade with scuff pad.
- Clean again with appropriate cleaner.
- Topcoat per technical data sheet recommendations.



# Luminore

- Use proper Personal Protective Equipment (PPE) during product application.



## Spray Bond Adhesive:

**274793SP/01:** *RTS 0 VOC*

- Clean with 45330/01 Speed Prep, 6405SP/01 Low VOC Cleaner or 6410SP/01 Low VOC PreCleaner.
- Apply 2 -3 light to medium coats, allowing proper flash time between coats.
- Allow 5-10 minutes to flash before clearcoating.
- Clearcoat per technical data sheet recommendations.

# Wood

- Use proper Personal Protective Equipment (PPE) during sanding and product application.
- Certain applications using exterior wood as a substrate will expand and/or contract too much for Matthews to be used.
- For exterior application, it is important to completely encapsulate the entire substrate to prevent moisture penetration.



## General Cleaning and Preparation Steps:

- Test moisture level of substrate. Moisture level should be less than 13%.
- Remove debris with clean compressed air.
- Abrade as necessary with 180 - 320 grit, finishing sanding with the finest grit possible.
- Remove dust with clean compressed air and tack rag.
- Seal the wood by applying 2 full wet coats of Matthews Gloss clear allowing proper flash time between coats.
- Allow the clear to fully dry before sanding with 320 grit or finer to smooth surface.
- Remove debris with clean compressed air.
- Apply 2 full wet coats of Matthews clear allowing proper flash time between coats.







**Matthews Cleaners** are designed to remove waxes, grease, silicones, and other contaminants on a variety of substrates including bare metal, plastics, primers, and more. Our environmentally friendly, ultra low VOC option is highly effective and compliant with most VOC rules nationwide.

**Technical Data Sheets**

45330SP/01 Speed Prep Cleaner ..... 109-110

6428SP/01 Plastic Prep ..... 111-112

6410SP/01 Low VOC PreCleaner ..... 113-114

**The Complete Matthews Paint System**



# Pre-Cleaning Operation

Substrates have many potential contaminants on the surface that must be removed before any work is carried out. Matthews has multiple cleaners for various substrates:

Matthews Cleaner	Product Type	Substrates	Contaminants
45330SP/01 Speed Prep*	Solvent Wax and Grease Remover	Metal**	Wax, Grease, Cutting Oil
6428SP/01 Plastic Prep*	Solvent Anti-Static	All Plastic	Mold Release, Static
6410SP/01 Low VOC PreCleaner	Waterborne Universal Cleaner	All Substrates	Most Organic and Inorganic Contaminants

\*Check local regulations for VOC restrictions

\*\*Caution: Do not use this product on fiberglass or plastic parts. Application on these surfaces can generate static build-up, which can result in a flash fire. Do not use on fresh/uncured finishes, otherwise softening of coating may occur.

## Cleaning Steps

Apply a generous amount of Matthews cleaner to the surface with a clean lint-free cloth or a hand held spray bottle and wipe the surface until dry.

Do not allow the cleaner to dry on the surface, or the final finish may be affected. This could lead to paint failure.





## Speed Prep Cleaner

# 45330SP/01

Proper substrate preparation plays an important role for the success of a paint job. Surface contamination is the most common reason for premature coating failures.

Speed Prep Cleaner has been specifically designed to remove waxes, grease, silicones, and other contaminants from bare or coated metals and therefore eliminate avoidable adhesion problems.



### Features:

Packaged ready for use.....No mixing; consistent results  
Solvent borne.....Excellent for removing wax, grease and oil contamination

### Benefits:

## Directions for Use

### 45330SP/01 Speed Prep:



- Apply a generous amount of 45330SP/01 on the surface with a clean cloth or a hand held spray bottle and wipe the surface.
- The initial application will float contaminants to the surface, and the second wipe using a separate clean dry cloth, will remove contaminants.
- For maximum results, wipe the surface dry while it is still wet, using a clean white cloth in one direction. This will eliminate the smearing of contaminants. Be sure to change rags frequently.
- Never let the cleaner dry on the surface.
- Use 45330SP/01 before and after sanding.

**Caution:** Do not use this product on fiberglass or plastic parts. Application on these surfaces can generate static build-up, which can result in a flash fire. Do not use on fresh/uncured finishes, otherwise softening of coating may occur.

### Technical Data:

Color	Clear
VOC lbs./US gal.	6.37 VOC

# 45330SP/01

**Speed Prep Cleaner**

**Important:** Refer to SDS for safety guidelines. Use in a well ventilated area with appropriate Personal Protective Equipment (PPE) to protect eyes, skin, and respiratory system.

**See Safety Data Sheet and Labels for additional safety information and handling instructions.**

EMERGENCY MEDICAL OR SPILL CONTROL INFORMATION - US (412) 434-4515; CANADA (514) 645-1320; Mexico 01-800-00-21-400  
Materials described are designed for application by professional, trained personnel using proper equipment and are not intended for sale to the general public. Products mentioned may be hazardous and should only be used according to directions, while observing precautions and warning statements listed on label. Statements and methods described are based upon the best information and practices known to Matthews Paint. Procedures for applications mentioned are suggestions only and are not to be construed as representations or warranties as to performance, results, or fitness for any intended use, nor does Matthews Paint warrant freedom from patent infringement in the use of any formula or process set forth herein. If you require technical assistance, please call us toll-free 800/323-6593.



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**Plastic Prep**

# 6428SP/01

6428SP/01 Plastic Prep is a multi-use product developed as a plastic cleaner that removes contaminants, such as mold release agents.

6428SP/01 Plastic Prep can be used on a variety of static-prone substrates, such as fiberglass, acrylic, and PVC.

6428SP/01 Plastic Prep can also be used as an anti-static agent for preparing a substrate for digital printing.



**Features:**

**Benefits:**

- Packaged ready for use .....No mixing; Consistent results
- Multi-use.....Versatile; Less inventory
- Alcohol based.....Reduces static charge; Cleaner paint jobs

**Directions for Use**

**6428SP/01 Plastic Prep:**



**Cleaner for Plastics and Flexible Parts:**

6428SP/01 quickly removes troublesome silicones and mold release agents from the substrate to be painted. Saturate a clean white cloth, wipe in one direction only, and immediately dry with a clean cloth. Use 6428SP/01 before and after sanding.

**Important:** Do not wipe over sensitive substrates such as fresh topcoats and/or primers as softening may occur.

**Caution:** Do not over-apply to laser-cut substrates, otherwise crazing may occur.

**Anti Static Agent:**

Using a spray gun or mist bottle, apply a mist coat of 6428SP/01 on the surface to be painted. This will help reduce static electricity on all treated surfaces, minimizing the attraction of dust and dirt particles.

**Technical Data:**

Color Clear  
 VOC lbs./US gal. 6.5 VOC

# 6428SP/01

Plastic Prep

**Important:** Refer to SDS for safety guidelines. Use in a well ventilated area with appropriate Personal Protective Equipment (PPE) to protect eyes, skin, and respiratory system.

**See Safety Data Sheet and Labels for additional safety information and handling instructions.**

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**Low VOC PreCleaner**

# 6410SP/01

6410SP/01 Low VOC PreCleaner is a superior waterborne surface cleaner used for removing most contaminations including wax and grease, mold release agents and sanding dust.

6410SP/01 can be used on a wide variety of substrates including; bare metal, plastics, primers, etc.

6410SP/01 has a VOC of 0.19 lbs/gal and is compliant with the most stringent VOC regulations nationwide.



**Features:**

**Benefits:**

Low VOC.....Compliant with the most stringent VOC regulations nationwide  
 Universal.....Cleans all substrates

**Directions for Use**

**6410SP/01 VOC PreCleaner:**



- Apply a generous amount of 6410SP/01 on the surface with a clean cloth or a hand held spray bottle and wipe the surface.
- The initial application will float contaminants to the surface, and the second wipe using a separate clean dry cloth, will remove contaminants.
- For maximum results, wipe the surface dry while it is still wet, using a clean white cloth in one direction. This will eliminate the smearing of contaminants. Be sure to change rags frequently.
- Never let the cleaner dry on the surface.
- Use 6410SP/01 before and after sanding.

**Technical Data:**

Color	Clear
VOC Actual	0.19 lbs/gal
VOC Actual	23 g/L

# 6410SP/01

Low VOC PreCleaner

**Important:** Refer to SDS for safety guidelines. Use in a well ventilated area with appropriate Personal Protective Equipment (PPE) to protect eyes, skin, and respiratory system.

**See Safety Data Sheet and Labels for additional safety information and handling instructions.**

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# P Primers

**Matthews Primers**, including chromate-free and low VOC product lines, provide excellent paint adhesion to a variety of hard-to-adhere substrates and can be directly coated with any Matthews topcoat. In addition, Matthews primers offer increased paint durability, corrosion protection, and filling capability.

## Technical Data Sheets

274535SP/01 Brilliant White Primer .....	117-120
74350SP/01 3.5 VOC Non-Chromate Etch Primer .....	121-124
74760SP/01 PT Filler .....	125-128
74770SP/01 HBPT High Build Etching Primer .....	129-132
74780SP/01 HBEF High Build Etching Filler .....	133-136
74734SP/01 Metal Pretreatment .....	137-140
274528SP/01 Gray, 274530SP/01 White, 274531SP/01 Black 2.1 VOC Epoxy Primers .....	141-144
274808SP/01 Black, 274908SP/01 White Epoxy Primers .....	145-148
MAP-LVU100/01 Ultra Low VOC Epoxy Primer .....	149-152
274777SP/01 Tie Bond Adhesive.....	153-156
74777SP/01 Tie Bond Adhesive .....	157-160
274793SP/01 Spray Bond Adhesive.....	161-164
6001SP/01 Polyester Primer Surfacer .....	165-168
274685SP/01 U-Prime White Urethane Primer .....	169-172

## The Complete Matthews Paint System



# Primer Overview

Primers, also known as Undercoats, create a solid foundation and are essential to the long-term durability of any paint project. Listed below are different primer types available from Matthews:

## Etch

- Provide adhesion and corrosion protection to bare metal
- Have limited filling qualities
- Do not require sanding

## Epoxy

- Provide adhesion and corrosion protection to bare metal
- Can be used a variety of bare and coated substrates
- Have good filling qualities
- Do not require sanding

## Urethane

- Provide adhesion and corrosion protection to bare metal
- Can be used a variety of bare and coated substrates
- Have better filling qualities than epoxies
- Can be used as a primer surfacer or applied wet-on-wet

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## Polyester

- Provide adhesion and corrosion protection to bare metal
- Can be used a variety of bare and coated substrates
- Have excellent filling qualities, especially for porous substrates
- Must be sanded

## Adhesive

- Provide adhesion to specific substrates
- Clear
- Have no filling qualities
- Do not require sanding





**Brilliant White Primer**

# 274535SP/01

Matthews 274535SP/01 Brilliant White Primer is a quality, two-component, low VOC self-etching metal primer designed for use on raw aluminum and steel.

274535SP/01 etches the properly prepared metal surface to provide outstanding paint adhesion and corrosion resistance. This fast drying etching primer will fill a 180g - 220g DA sand scratch with a two-coat application.

The high reflectivity of 274535SP/01 allows for use on unsanded interior surfaces of channel letters and sign cans to enhance brightness and eliminate lighting “hot spots”.



**Features:**

**Benefits:**

Low VOC technology .....	Environmentally friendly, meets 3.5 VOC regulations
Chromate-free.....	Meets EPA regulations for chromate restrictions
Topcoat with any Matthews Acrylic Polyurethane finishes.....	Versatile, multi-purpose
Easy mix ratio .....	Less time mixing
Anti-corrosion properties.....	Provides excellent corrosion protection
Etching properties .....	Great adhesion to properly prepared aluminum or steel
24 hour pot life.....	Mix once and use all day

**Compatible Surfaces:**

274535SP/01 Brilliant White Primer may be applied over properly prepared:

- Aluminum
- Steel

**Associated Products:**

74351SP/01 Non-Chromate Hardener

# 274535SP/01

## Directions for Use

### Surface Preparation:

- Apply a generous amount of 45330SP/01 Speed Prep, 6405SP/01 Low VOC Cleaner or 6410SP/01 Low VOC PreCleaner to the surface with a clean cloth or a hand held spray bottle and wipe the surface until dry.
- For interior surfaces, abrading is not required.
- For exterior surfaces, abrade as necessary with 180-320 grit, finishing sanding with the finest grit possible.
- Clean again with 45330SP/01 Speed Prep, 6405SP/01 Low VOC Cleaner or 6410SP/01 Low VOC PreCleaner.

### Mix Ratio:



Mix Ratio for Spraying (by volume)

274535SP/01 74351SP/01

1 part 1 part

- All components should be mixed thoroughly before using
- Strain material after mixing
- Store mixed materials in an acid resistant plastic container



**Pot Life:** 24 hours

Pot-life is the amount of time before spray viscosity doubles. These are estimates based on lab results at 50% relative humidity, 70°F/21°C—results will vary based on application conditions. Note: mix no more product than can be used within the pot life.

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### Additives:



None

### Spray Set Up:



Air Pressure: Conventional: 40 - 50 psi at the gun\*  
HVLV: 10 psi at the cap\*

\* Refer to spray gun manufacturer recommendations for inlet pressure.



Pressure Pot Fluid Delivery: 8 - 12 Fluid Ounces per Minute



Gun Set Up: Siphon Feed: 1.4 - 1.8 mm 0.055 - 0.071 fluid tip  
HVLV: 1.4 - 1.8 mm 0.055 - 0.071 fluid tip  
Pressure Pot: 1.1 - 1.2 mm 0.043 - 0.047 fluid tip

### Application:



Apply: Apply one to two wet coats, allowing proper flash time\* between coats. Apply additional coats as necessary to achieve total dry film thickness.

\*Flash times will vary dependent upon film thickness, temperature, spray gun set-up, application, etc.

Recommended Film Thickness: Wet Film Thickness (WFT) 6.4 - 12.8 mils  
Dry Film Thickness (DFT) 1.0 - 2.0 mils\*\*

\*\*For maximum reflectivity, a dry film thickness of 2.0 mils is recommended.

**Caution:** All 2-component crosslinking slows significantly at temperatures below 60°F or 16°C. Never spray or subject freshly painted coatings to these conditions or loss of gloss, decreased durability and improper curing can occur.

# 274535SP/01

## Directions for Use

### Estimated Drying Times:



Air-Dry @ 50% Relative Humidity, 70°F/21°C	
Dust Free	15 - 25 minutes
Dry to Touch	30 minutes*
Dry to Topcoat	30 minutes - 72 hours (max)**

\*If necessary to remove dust nibs, 274535SP/01 Brilliant White Primer may be sanded with 220 - 320g after 4 hours (do not wet sand etch primers).

\*\*After 72 hours, sand with a 220-400 grit dry, or equivalent sanding pad. Do not sand below minimum dry film thickness, otherwise reprime before topcoating.

**Note:** Etch primers should never be wet sanded or exposed to moisture or weather before topcoating.

### Equipment Cleaning:

Clean equipment promptly with lacquer thinner or equivalent cleaning solvent.

**Note: Do not leave mixed material in equipment.**

### Technical Data:

#### VOC Information

VOC Actual RTS	0.89 lbs/gal
VOC Actual RTS	107 g/L
VOC Regulatory (less water less exempt) RTS	3.05 lbs/gal
VOC Regulatory (less water less exempt) RTS	365 g/L

For complete VOC information, visit [MatthewsPaint.com](http://MatthewsPaint.com) > Quick Links > VOC Data

#### Performance Characteristics

Volume solids (RTS)	15.8%
Theoretical Coverage (1 mil @ 100% transfer efficiency)	253 sq.ft./RTS gal
Application Conditions - Temperature	60°F (16°C) Minimum 100°F (38°C) Maximum
Application Conditions - Relative Humidity	85% maximum 5° above dew point

**Important:** The contents of this package may have to be blended with other components before the product can be used. Before opening the packages, be sure you understand the warning messages on the labels of all components, since the mixture will have the hazards of all its parts. Improper spray technique may result in a hazardous condition. Follow spray equipment manufacturer's instructions to prevent personal injury or fire. Follow directions for respirator use. Wear eye and skin protection. Observe all applicable precautions.

**See Safety Data Sheet and Labels for additional safety information and handling instructions.**

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# 274535SP/01

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Brilliant White Primer

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### 3.5 VOC Non-Chromate Etch Primer

# 74350SP/01

Matthews 74350SP/01 Non-Chromate Etch Primer is a quality, two-component, 3.5 VOC self-etching metal primer. It is designed for use on raw aluminum and steel.

74350SP/01 etches the properly prepared metal surface to provide outstanding paint adhesion and corrosion resistance.

This fast drying etching primer is dark gray-green in color and will fill a 180g - 220g DA sand scratch with a one-coat application.



#### Features:

Low VOC technology .....  
 Chromate-free.....  
 Topcoat with any Matthews Acrylic Polyurethane finishes.....  
 Easy mix ratio.....  
 Anti-corrosion properties.....  
 Etching properties .....  
 24 hour pot life.....

#### Benefits:

Environmentally friendly, meets 3.5 VOC regulations  
 Meets EPA regulations for chromate restrictions  
 Versatile, multi-purpose  
 Less time mixing  
 Provides excellent corrosion protection  
 Great adhesion to properly prepared aluminum or steel  
 Mix once and use all day

#### Compatible Surfaces:

**74350SP/01 Non-Chromate Etch Primer may be applied over properly prepared:**  
 Aluminum  
 Steel

#### Associated Products:

74351SP/01 Non-Chromate Hardener

# 74350SP/01

## Directions for Use

**Surface Preparation:** Substrate should be prepared according to Matthews Substrate Preparation Guide prior to primer application.

**Mix Ratio:**



Mix Ratio for Spraying (by volume)

74350SP/01 74351SP/01

1 part 1 part

- All components should be mixed thoroughly before using
- Strain material after mixing
- Store mixed materials in an acid resistant plastic container



**Pot Life:** 24 hours

Pot-life is the amount of time before spray viscosity doubles. These are estimates based on lab results at 50% relative humidity, 70°F/21°C—results will vary based on application conditions. Note: mix no more product than can be used within the pot life.

**Additives:**



None

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**Spray Set Up:**



Air Pressure: Conventional: 40 - 50 psi at the gun\*  
HVLV: 10 psi at the cap\*

\* Refer to spray gun manufacturer recommendations for inlet pressure.



Pressure Pot Fluid Delivery: 8 - 12 Fluid Ounces per Minute



Gun Set Up: Siphon Feed: 1.3 - 1.5 mm 0.051 - 0.059 fluid tip  
HVLV: 1.3 - 1.5 mm 0.051 - 0.059 fluid tip  
Pressure Pot: 1.1 mm 0.043 fluid tip

**Application:**



Apply: Apply one full wet coat.

Recommended Film Thickness for one coat: Wet Film Thickness (WFT) 3.4 - 4.6 mils  
Dry Film Thickness (DFT) 0.5 - 0.7 mils

**Caution:** All 2-component crosslinking slows significantly at temperatures below 60°F or 16°C. Never spray or subject freshly painted coatings to these conditions or loss of gloss, decreased durability and improper curing can occur.

# 74350SP/01

## Directions for Use

### Estimated Drying Times:



Air-Dry @ 50% Relative Humidity, 70°F/21°C  
Dust Free 15 - 25 minutes  
Dry to Touch 30 minutes\*  
Dry to Topcoat 30 minutes - 24 hours (max)\*\*

\*If necessary to remove dust nibs, 74350SP/01 Non-Chromate Etch Primer may be sanded with 220 - 320g after 4 hours (do not wet sand etch primers).

\*\*After 24 hours, sand with a 220-400 grit dry, or equivalent sanding pad. Do not sand below minimum dry film thickness, otherwise reprime before topcoating.

**Note:** Etch primers should never be wet sanded or exposed to moisture or weather before topcoating.

### Equipment Cleaning:

Clean equipment promptly with lacquer thinner or equivalent cleaning solvent.

**Note: Do not leave mixed material in equipment.**

### Technical Data:

#### VOC Information

VOC Actual RTS	1.0 lbs/gal
VOC Actual RTS	120 g/L
VOC Regulatory (less water less exempt) RTS	3.38 lbs/gal
VOC Regulatory (less water less exempt) RTS	405 g/L

For complete VOC information, visit [MatthewsPaint.com](http://MatthewsPaint.com) > Quick Links > VOC Data

#### Performance Characteristics

Volume solids (RTS)	14.7%
Theoretical Coverage (1 mil @ 100% transfer efficiency)	235 sq.ft./RTS gal
Application Conditions - Temperature	60°F (16°C) Minimum 100°F (38°C) Maximum
Application Conditions - Relative Humidity	85% maximum 5° above dew point

**Important:** The contents of this package may have to be blended with other components before the product can be used. Before opening the packages, be sure you understand the warning messages on the labels of all components, since the mixture will have the hazards of all its parts. Improper spray technique may result in a hazardous condition. Follow spray equipment manufacturer's instructions to prevent personal injury or fire. Follow directions for respirator use. Wear eye and skin protection. Observe all applicable precautions.

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# 74350SP/01

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**3.5 VOC Non-Chromate  
Etch Primer**

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**PT Filler**

# 74760SP/01

Matthews 74760SP/01 PT Filler is a quality, two-component, self-etching metal primer. It is designed for use on raw aluminum and can also be used on steel.

74760SP/01 PT Filler etches the properly prepared metal surface to provide outstanding paint adhesion and corrosion resistance.

This fast drying etching primer is dark gray-green in color and will fill a 180g DA sand scratch with a two-coat application.



**Features:**

**Benefits:**

Topcoat with any Matthews Acrylic Polyurethane finishes .....	Versatile, multi-purpose
Easy mix ratio .....	Less time mixing
Anti-corrosion properties .....	Provides excellent corrosion protection
Etching properties .....	Great adhesion to properly prepared aluminum or steel
Seven day pot life .....	Mix once and use all week

**Compatible Surfaces:**

74760SP/01 PT Filler may be applied over properly prepared:  
 Aluminum  
 Steel

**Associated Products:**

74766SP/01 Activator

# 74760SP/01

## Directions for Use

**Surface Preparation:** Substrate should be prepared according to Matthews Substrate Preparation Guide prior to primer application.

**Mix Ratio:**



Mix Ratio for Spraying (by volume)

74760SP/01 74766SP/01

1 part 1 part

- All components should be mixed thoroughly before using
- Strain material after mixing
- Store mixed materials in an acid resistant plastic container



**Pot Life:** 7 days

Pot-life is the amount of time before spray viscosity doubles. These are estimates based on lab results at 50% relative humidity, 70°F/21°C—results will vary based on application conditions. Note: mix no more product than can be used within the pot life.

**Additives:**



None

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**Spray Set Up:**



Air Pressure: Conventional: 40 - 50 psi at the gun\*  
HVLV: 10 psi at the cap\*

\* Refer to spray gun manufacturer recommendations for inlet pressure.



Pressure Pot Fluid Delivery: 8 - 12 Fluid Ounces per Minute



Gun Set Up: Siphon Feed: 1.3 - 1.5 mm 0.051 - 0.059 fluid tip  
HVLV: 1.3 - 1.5 mm 0.051 - 0.059 fluid tip  
Pressure Pot: 1.1 mm 0.043 fluid tip

**Application:**



Apply: Apply two full wet coats, allowing proper flash time\* between coats. Apply additional coats as necessary to achieve total dry film thickness.

\*Flash times will vary dependent upon film thickness, temperature, spray gun set-up, application, etc.

		Per Coat	Total
Recommended Film Thickness:	Wet Film Thickness (WFT)	5 - 6.25	10 - 12.5
	Dry Film Thickness (DFT)	0.4 - 0.5 mils	0.8 - 1 mil

**Caution:** All 2-component crosslinking slows significantly at temperatures below 60°F or 16°C. Never spray or subject freshly painted coatings to these conditions or loss of gloss, decreased durability and improper curing can occur.

# 74760SP/01

## Directions for Use

### Estimated Drying Times:



Air-Dry @ 50% Relative Humidity, 70°F/21°C  
Dust Free 15 - 25 minutes  
Dry to Touch 30 minutes\*  
Dry to Topcoat 30 minutes - 24 hours (max)\*\*

\*If necessary to remove dust nibs, 74760SP/01 PT Filler may be sanded with 220 - 320g after 2 - 4 hours (do not wet sand etch primers).

\*\*After 24 hours, sand with a 220-400 grit dry, or equivalent sanding pad. Do not sand below minimum dry film thickness, otherwise reprime before topcoating.

**Note:** Etch primers should never be wet sanded or exposed to moisture or weather before topcoating.

### Equipment Cleaning:

Clean equipment promptly with lacquer thinner or equivalent cleaning solvent.

**Note: Do not leave mixed material in equipment.**

### Technical Data:

#### VOC Information

VOC Actual RTS	6.25 lbs/gal
VOC Actual RTS	749 g/L
VOC Regulatory (less water less exempt) RTS	6.32 lbs/gal
VOC Regulatory (less water less exempt) RTS	757 g/L

For complete VOC information, visit [MatthewsPaint.com](http://MatthewsPaint.com) > Quick Links > VOC Data

#### Performance Characteristics

Volume solids (RTS)	8%
Theoretical Coverage (1 mil @ 100% transfer efficiency)	128 sq.ft./RTS gal
Application Conditions - Temperature	60°F (16°C) Minimum 100°F (38°C) Maximum
Application Conditions - Relative Humidity	85% maximum 5° above dew point

**Important:** The contents of this package may have to be blended with other components before the product can be used. Before opening the packages, be sure you understand the warning messages on the labels of all components, since the mixture will have the hazards of all its parts. Improper spray technique may result in a hazardous condition. Follow spray equipment manufacturer's instructions to prevent personal injury or fire. Follow directions for respirator use. Wear eye and skin protection. Observe all applicable precautions.

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# 74760SP/01

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PT Filler

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**HBPT High Build Etching Primer**

# 74770SP/01

Matthews 74770SP/01 HBPT is a quality, two-component, high build self-etching metal primer. It is designed for use on raw aluminum and steel.

74770SP/01 HBPT etches the properly prepared metal surface to provide outstanding paint adhesion and corrosion resistance.

This fast drying etching primer is buff colored and will fill a 120g DA sand scratch with a two-coat application.



**Features:**

**Benefits:**

- |   |   |
|---|---|
| Topcoat with any Matthews Acrylic Polyurethane finishes ..... | Versatile, multi-purpose                              |
| Easy mix ratio .....  | Less time mixing                                      |
| Anti-corrosion properties .....                               | Provides excellent corrosion protection               |
| Etching properties .....                                      | Great adhesion to properly prepared aluminum or steel |
| 14 day pot life .....   | Mix once and use for two weeks                        |

**Compatible Surfaces:**

**74770SP/01 High Build Etching Primer may be applied over properly prepared:**  
 Aluminum  
 Steel

**Associated Products:**

74766SP/01 Activator

# 74770SP/01

## Directions for Use

**Surface Preparation:** Substrate should be prepared according to Matthews Substrate Preparation Guide prior to primer application.

**Mix Ratio:**



Mix Ratio for Spraying (by volume)

74770SP/01 74766SP/01

1 part 1 part

- All components should be mixed thoroughly before using
- Strain material after mixing
- Store mixed materials in an acid resistant plastic container



**Pot Life:** 14 days

Pot-life is the amount of time before spray viscosity doubles. These are estimates based on lab results at 50% relative humidity, 70°F/21°C—results will vary based on application conditions. Note: mix no more product than can be used within the pot life.

**Additives:**



None

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**Spray Set Up:**



Air Pressure: Conventional: 40 - 50 psi at the gun\*  
HVLV: 10 psi at the cap\*

\* Refer to spray gun manufacturer recommendations for inlet pressure.



Pressure Pot Fluid Delivery: 8 - 12 Fluid Ounces per Minute



Gun Set Up: Siphon Feed: 1.3 - 1.5 mm 0.051 - 0.059 fluid tip  
HVLV: 1.3 - 1.5 mm 0.051 - 0.059 fluid tip  
Pressure Pot: 1.1 mm 0.043 fluid tip

**Application:**



Apply: Apply two full wet coats, allowing proper flash time\* between coats. Apply additional coats as necessary to achieve total dry film thickness.

\*Flash times will vary dependent upon film thickness, temperature, spray gun set-up, application, etc.

		Per Coat	Total
Recommended Film Thickness:	Wet Film Thickness (WFT)	3.0 - 5.0 mils	6.0 - 10.0 mils
	Dry Film Thickness (DFT)	0.3 - 0.5 mils	0.6 - 1.0 mils

**Caution:** All 2-component crosslinking slows significantly at temperatures below 60°F or 16°C. Never spray or subject freshly painted coatings to these conditions or loss of gloss, decreased durability and improper curing can occur.

# 74770SP/01

## Directions for Use

### Estimated Drying Times:



Air-Dry @ 50% Relative Humidity, 70°F/21°C  
Dust Free 15 - 25 minutes  
Dry to Touch 30 minutes\*  
Dry to Topcoat 30 minutes - 24 hours (max)\*\*

\*If necessary to remove dust nibs, 74770SP/01 High Build Etching Primer may be sanded with 220 - 320g after 2 - 4 hours (do not wet sand etch primers).

\*\*After 24 hours, sand with a 220-400 grit dry, or equivalent sanding pad. Do not sand below minimum dry film thickness, otherwise reprime before topcoating.

**Note:** Etch primers should never be wet sanded or exposed to moisture or weather before topcoating.

### Equipment Cleaning:

Clean equipment promptly with lacquer thinner or equivalent cleaning solvent.

**Note: Do not leave mixed material in equipment.**

### Technical Data:

#### VOC Information

VOC Actual RTS	6.08 lbs/gal
VOC Actual L	728 g/L
VOC Regulatory (less water less exempt) RTS	6.15 lbs/gal
VOC Regulatory (less water less exempt) L	736 g/L

For complete VOC information, visit [MatthewsPaint.com](http://MatthewsPaint.com) > Quick Links > VOC Data

#### Performance Characteristics

Volume solids (RTS)	10.08%
Theoretical Coverage (1 mil @ 100% transfer efficiency)	161 sq.ft./RTS gal
Application Conditions - Temperature	60°F (16°C) Minimum 100°F (38°C) Maximum
Application Conditions - Relative Humidity	85% maximum 5° above dew point

**Important:** The contents of this package may have to be blended with other components before the product can be used. Before opening the packages, be sure you understand the warning messages on the labels of all components, since the mixture will have the hazards of all its parts. Improper spray technique may result in a hazardous condition. Follow spray equipment manufacturer's instructions to prevent personal injury or fire. Follow directions for respirator use. Wear eye and skin protection. Observe all applicable precautions.

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# 74770SP/01

HBPT High Build Etching Primer

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**HBEF High Build Etching Filler**

# 74780SP/01

Matthews 74780SP/01 HBEF is a quality, two-component, high build self-etching metal primer. It is designed for use on raw aluminum and steel.

74780SP/01 HBEF etches the properly prepared metal surface to provide outstanding paint adhesion and corrosion resistance.

This fast drying etching primer is light-yellow/beige in color and will fill a 100g DA sand scratch with a two-coat application.



**Features:**

**Benefits:**

Topcoat with any Matthews Acrylic Polyurethane finishes .....	Versatile, multi-purpose
Easy mix ratio .....	Less time mixing
Anti-corrosion properties .....	Provides excellent corrosion protection
Etching properties .....	Great adhesion to properly prepared aluminum or steel
14 day pot life .....	Mix once and use for two weeks

**Compatible Surfaces:**

**74780SP/01 High Build Etching Filler may be applied over properly prepared:**  
 Aluminum  
 Steel

**Associated Products:**

74781SP/01 HBEF Activator

# 74780SP/01

## Directions for Use

**Surface Preparation:** Substrate should be prepared according to Matthews Substrate Preparation Guide prior to primer application.

**Mix Ratio:**



Mix Ratio for Spraying (by volume)

74780SP/01 74781SP/01

1 part 1 part

- All components should be mixed thoroughly before using
- Strain material after mixing
- Store mixed materials in an acid resistant plastic container



**Pot Life:** 14 days

Pot-life is the amount of time before spray viscosity doubles. These are estimates based on lab results at 50% relative humidity, 70°F/21°C—results will vary based on application conditions.

Note: mix no more product than can be used within the pot life.

**Additives:**



None

**Spray Set Up:**



Air Pressure: Conventional: 40 - 50 psi at the gun\*  
HVLV: 10 psi at the cap\*

\* Refer to spray gun manufacturer recommendations for inlet pressure.



Pressure Pot Fluid Delivery: 8 - 12 Fluid Ounces per Minute



Gun Set Up: Siphon Feed: 1.3 - 1.5 mm 0.051 - 0.059 fluid tip  
HVLV: 1.3 - 1.5 mm 0.051 - 0.059 fluid tip  
Pressure Pot: 1.1 mm 0.043 fluid tip

**Application:**



Apply: Apply two full wet coats, allowing proper flash time\* between coats.  
Apply additional coats as necessary to achieve total dry film thickness.

\*Flash times will vary dependent upon film thickness, temperature, spray gun set-up, application, etc.

		Per Coat	Total
Recommended Film Thickness:	Wet Film Thickness (WFT)	2.6 - 4.3 mils	5.2 - 8.6 mils
	Dry Film Thickness (DFT)	0.3 - 0.5 mils	0.6 - 1.0 mils

**Caution:** All 2-component crosslinking slows significantly at temperatures below 60°F or 16°C. Never spray or subject freshly painted coatings to these conditions or loss of gloss, decreased durability and improper curing can occur.

# 74780SP/01

## Directions for Use

### Estimated Drying Times:



Air-Dry @ 50% Relative Humidity, 70°F/21°C	
Dust Free	15 - 25 minutes
Dry to Touch	30 minutes*
Dry to Topcoat	30 minutes - 24 hours (max)**

\*If necessary to remove dust nibs, 74780SP/01 High Build Etching Filler may be sanded with 220 - 320g after 2 - 4 hours (do not wet sand etch primers).

\*\*After 24 hours, sand with a 220-400 grit dry, or equivalent sanding pad. Do not sand below minimum dry film thickness, otherwise reprime before topcoating.

**Note:** Etch primers should never be wet sanded or exposed to moisture or weather before topcoating.

### Equipment Cleaning:

Clean equipment promptly with lacquer thinner or equivalent cleaning solvent.

**Note: Do not leave mixed material in equipment.**

### Technical Data:

#### VOC Information

VOC Actual RTS	6.02 lbs/gal
VOC Actual RTS	721 g/L
VOC Regulatory (less water less exempt) RTS	6.1 lbs/gal
VOC Regulatory (less water less exempt) RTS	731 g/L

For complete VOC information, visit [MatthewsPaint.com](http://MatthewsPaint.com) > Quick Links > VOC Data

#### Performance Characteristics

Volume solids (RTS)	11.45%
Theoretical Coverage (1 mil @ 100% transfer efficiency)	183 sq.ft./RTS gal
Application Conditions - Temperature	60°F (16°C) Minimum 100°F (38°C) Maximum
Application Conditions - Relative Humidity	85% maximum 5° above dew point

**Important:** The contents of this package may have to be blended with other components before the product can be used. Before opening the packages, be sure you understand the warning messages on the labels of all components, since the mixture will have the hazards of all its parts. Improper spray technique may result in a hazardous condition. Follow spray equipment manufacturer's instructions to prevent personal injury or fire. Follow directions for respirator use. Wear eye and skin protection. Observe all applicable precautions.

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# 74780SP/01

High Build Etching Filler

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## Metal Pretreatment

# 74734SP/01

Matthews 74734SP/01 Metal Pretreatment is a quality, two-component, self-etching metal pretreatment. It is designed for use on raw aluminum and can also be used on steel.

74734SP/01 Metal Pretreatment etches the properly prepared metal surface to provide outstanding paint adhesion and corrosion resistance.

This fast drying pretreatment is transparent yellow in color and will fill a 220 - 320g DA sand scratch with a two coat application.



### Features:

Topcoat with any Matthews Acrylic Polyurethane finishes .....	Versatile, multi-purpose
Easy mix ratio .....	Less time mixing
Anti-corrosion properties .....	Provides excellent corrosion protection
Etching properties .....	Great adhesion to properly prepared aluminum or steel
Eight hour pot life .....	Mix once and use all day

### Benefits:

### Compatible Surfaces:

74734SP/01 Metal Pretreatment may be applied over properly prepared:

- Aluminum\*
- Steel\*

\*NOTE: 74734SP/01 Metal Pretreatment not for use over sand-blasted, shot-blasted or media-blasted aluminum or steel due to the product's low filling properties.

### Associated Products:

74735SP/01 Activator

# 74734SP/01

## Directions for Use

**Surface Preparation:** Substrate should be prepared according to Matthews Substrate Preparation Guide prior to primer application.

**Mix Ratio:**



Mix Ratio for Spraying (by volume)

74734SP/01 74735SP/01

1 part 1 part

- All components should be mixed thoroughly before using
- Strain material after mixing
- Store mixed materials in an acid resistant plastic container



**Pot Life:** 8 hours

Pot-life is the amount of time before spray viscosity doubles. These are estimates based on lab results at 50% relative humidity, 70°F/21°C—results will vary based on application conditions. Note: mix no more product than can be used within the pot life.

**Additives:**



None

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**Spray Set Up:**



Air Pressure: Conventional: 40 - 50 psi at the gun\*  
HVLV: 10 psi at the cap\*

\* Refer to spray gun manufacturer recommendations for inlet pressure.



Pressure Pot Fluid Delivery: 8 - 12 Fluid Ounces per Minute



Gun Set Up: Siphon Feed: 1.3 mm 0.051 fluid tip  
HVLV: 1.3 mm 0.051 fluid tip  
Pressure Pot: 1.1 mm 0.043 fluid tip

**Application:**



Apply: Apply two medium wet coats, allowing proper flash time\* between coats. Apply additional coats as necessary to achieve total dry film thickness.  
\*Flash times will vary dependent upon film thickness, temperature, spray gun set-up, application, etc.

Recommended Dry Film Thickness (DFT):	Per Coat	Total
	0.12 - 0.17 mils	0.25 - 0.35 mils

**Caution:** All 2-component crosslinking slows significantly at temperatures below 60°F or 16°C. Never spray or subject freshly painted coatings to these conditions or loss of gloss, decreased durability and improper curing can occur.

**Estimated Drying Times:**



Air-Dry @ 50% Relative Humidity, 70°F/21°C

Dust Free 5 - 10 minutes  
Dry to Touch 30 minutes  
Dry to Topcoat 30 minutes - 8 hours (max)\*

\*After 8 hours, scuff with 400 grit dry or equivalent sanding pad.

Do not sand below minimum dry film thickness, otherwise reprime before topcoating.

**Note:** Do not expose etch primers to moisture or weather before topcoating.

# 74734SP/01

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## Directions for Use

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**Equipment Cleaning:** Clean equipment promptly with lacquer thinner or equivalent cleaning solvent.  
**Note: Do not leave mixed material in equipment.**

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**Technical Data:**

**VOC Information**

VOC Actual RTS	6.22 lbs/gal
VOC Actual RTS	745 g/L
VOC Regulatory (less water less exempt) RTS	6.30 lbs/gal
VOC Regulatory (less water less exempt) RTS	755 g/L

For complete VOC information, visit [MatthewsPaint.com](http://MatthewsPaint.com) > Quick Links > VOC Data

**Performance Characteristics**

Volume solids (RTS)	5.2%
Theoretical Coverage (0.25 - 0.35 mil @ 100% transfer efficiency)	247 - 346 sq.ft./RTS gal
Application Conditions - Temperature	60°F (16°C) Minimum 100°F (38°C) Maximum
Application Conditions - Relative Humidity	85% maximum 5° above dew point

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**Important:** The contents of this package may have to be blended with other components before the product can be used. Before opening the packages, be sure you understand the warning messages on the labels of all components, since the mixture will have the hazards of all its parts. Improper spray technique may result in a hazardous condition. Follow spray equipment manufacturer's instructions to prevent personal injury or fire. Follow directions for respirator use. Wear eye and skin protection. Observe all applicable precautions.

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**See Safety Data Sheet and Labels for additional safety information and handling instructions.**

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# 74734SP/01

**Metal Pretreatment**

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## 2.1 VOC Epoxy Primers

274528SP/01 Gray  
 274530SP/01 White  
 274531SP/01 Black

Matthews 2.1 VOC Epoxy Primers are corrosion resistant primers that provide excellent adhesion to many types of substrates, including stainless steel, and can also be used in areas where a maximum 2.1 VOC is required.

Packaged in Gray, White, and Black, primers can be mixed together to achieve shades from light gray to dark gray.



### Features:

### Benefits:

Low VOC technology .....	Environmentally friendly, meets 2.1 VOC regulations
Chromate-free .....	Meets EPA regulations for chromate restrictions
Available in Black, White, and Gray .....	Combine together for any shade of gray
Topcoat with any Matthews Acrylic Polyurethane finishes .....	Versatile, multi-purpose
Compatible over various substrates, including stainless steel .....	For multiple applications, fewer products to stock
Brush and roll capability .....	For use in areas where air spraying is prohibited
Epoxy technology .....	Excellent corrosion resistance, superior adhesion to substrate
Excellent filling properties .....	Capable of hiding minor metal substrate defects
Easy mix ratio .....	Less time mixing
Four day topcoat window .....	No sanding required prior to topcoating within window

### Compatible Surfaces:

#### 2.1 VOC Epoxy Primers may be applied over properly prepared:

Steel	Galvanized steel	Body filler
Stainless steel	Aluminum	Masonry
Blasted steel	Fiberglass	Wood
Carbon steel	Previously painted surfaces	

### Associated Products:

#### Catalyst

274529SP/04 2.1 VOC Epoxy Hardener



**Directions for Use**

**Application:**



Apply:

Apply one to two full wet coats, allowing proper flash time\* between coats.  
Apply additional coats as necessary to achieve total dry film thickness.  
*\*Flash times will vary dependent upon film thickness, temperature, solvent selection, spray gun set-up, application, etc.*

Recommended	One Coat	Two Coat
Film Thickness:	Application	Application
	Wet Film Thickness (WFT) 2 - 3 mils	4 - 6 mils
	Dry Film Thickness (DFT) 1 - 1.5 mils (minimum)	2 - 3 mils

**Caution:** All 2-component crosslinking slows significantly at temperatures below 60°F or 16°C. Never spray or subject freshly painted coatings to these conditions or loss of gloss, decreased durability and improper curing can occur.

**Estimated Drying Times:**



Air-Dry @ 50% Relative Humidity, 70°F/21°C  
Dust Free 15 - 20 minutes  
Dry to Touch 20 - 30 minutes  
Dry to Handle 30 - 45 minutes  
Dry to Topcoat 30 minutes - 4 days (max)\*

\*After 4 days, sand with a 220-400 grit dry, or equivalent sanding pad. Do not sand below minimum dry film thickness, otherwise reprime before topcoating.

**Equipment Cleaning:**

Clean equipment promptly with lacquer thinner or equivalent cleaning solvent.  
**Note: Do not leave mixed material in equipment.**

**Technical Data:**

**VOC Information**

VOC Actual RTS	1.28 - 1.29 lbs/gal
VOC Actual RTS	153 - 154 g/L
VOC Regulatory (less water less exempt) RTS	2.09 - 2.1 lbs/gal
VOC Regulatory (less water less exempt) RTS	250 g/L

For complete VOC information, visit [MatthewsPaint.com](http://MatthewsPaint.com) > Quick Links > VOC Data

**Performance Characteristics**

Volume solids (RTS)	43.7%
Theoretical Coverage (1 mil @ 100% transfer efficiency)	702 sq.ft./RTS gal
Application Conditions - Temperature	60°F (16°C) Minimum 100°F (38°C) Maximum
Application Conditions - Relative Humidity	85% maximum 5° above dew point

274528SP/01 Gray, 274530SP/01 White,  
274531SP/01 Black

## 2.1 VOC Epoxy Primers

**Important:** The contents of this package may have to be blended with other components before the product can be used. Before opening the packages, be sure you understand the warning messages on the labels of all components, since the mixture will have the hazards of all its parts. Improper spray technique may result in a hazardous condition. Follow spray equipment manufacturer's instructions to prevent personal injury or fire. Follow directions for respirator use. Wear eye and skin protection. Observe all applicable precautions.

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## Epoxy Primers

# 274808SP/01 Black 274908SP/01 White

Matthews Epoxy Primers are corrosion resistant primers that provide excellent adhesion to many types of substrates and can also be used in 3.5 VOC compliant areas.

Combine the white epoxy with the black to create a wide range of gray shades to compliment the topcoat.



### Features:

Low VOC technology .....	Environmentally friendly, meets 3.5 VOC regulations
Chromate-free.....	Meets EPA regulations for chromate restrictions
Available in Black and White.....	Combine together for any shade of gray
Topcoat with any Matthews Acrylic Polyurethane finishes.....	Versatile, multi-purpose
Compatible over various substrates.....	For multiple applications, fewer products to stock
Brush and roll capability .....	For use in areas where air spraying is prohibited
Epoxy technology .....	Excellent corrosion resistance, superior adhesion to substrate
Excellent filling properties.....	Capable of hiding minor metal substrate defects
Easy mix ratio .....	Less time mixing
24 hours topcoat window .....	No sanding required prior to topcoating within window
Anti-corrosion properties.....	Provides excellent corrosion protection

### Benefits:

### Compatible Surfaces:

**274808SP/01 and 274908SP/01 Epoxy Primers may be applied over properly prepared:**

Steel	Aluminum	Masonry
Blasted steel	Fiberglass	Wood
Carbon steel	Previously painted surfaces	
Galvanized steel	Body filler	

### Associated Products:

#### Catalyst

274909SP/04 Epoxy Hardener

#### Exempt MAP Reducer (for 3.5 VOC)

- 6370SP/01 Cool temperature, 60 - 75°F (16 - 24°C)
- 6371SP/01 Warm temperature, 70 - 85°F (21 - 29°C)
- 6372SP/01 Hot temperature, 80°F (27°C) & above

Note: if 3.5 VOC is not required, any Matthews conventional or low VOC reducer can be used.

# 274808SP/01 Black, 274908SP/01 White

## Directions for Use

**Surface Preparation:** Substrate should be prepared according to Matthews Substrate Preparation Guide prior to primer application.

**Mix Ratio:**



Mix Ratio for Spraying (by volume)

274808SP/01 / Black		
274908SP/01 / White	274909SP/04	Reducer**
3 parts*	1 part	1 part

\*Any combination of black and white may be mixed together to make gray prior to catalyzing and reducing.

To achieve various shades of gray the table below may be used as a guideline.

	274908SP/01 (White)	274808SP/01 (Black)
White	100%	-
Light Grey	75%	25%
Medium Grey	50%	50%
Dark Grey	25%	75%
Black	-	100%

\*\*Choose VOC MAP reducer

For 3.5 VOC:

- 6370SP/01 Cool temperature, 60 - 75°F (16 - 24°C)
- 6371SP/01 Warm temperature, 70 - 85°F (21 - 29°C)
- 6372SP/01 Hot temperature, 80°F (27°C) & above
- NOTE: Larger jobs may require a hotter temperature reducer.

If 3.5 VOC is not required, any Matthews conventional or low VOC reducer can be used.

- All components should be mixed thoroughly before using
- Strain material after mixing



**Pot Life:** 4 hours

Pot-life is the amount of time before spray viscosity doubles. These are estimates based on lab results at 50% relative humidity, 70°F/21°C—results will vary based on application conditions, reducer selection, and accelerator choice.

Note: mix no more product than can be used within pot life.

**Additives:**



None

**Spray Set Up:**



Air Pressure: Conventional: 40 - 50 psi at the gun\*  
HVLV: 10 psi at the cap\*

\* Refer to spray gun manufacturer recommendations for inlet pressure.



Pressure Pot Fluid Delivery: 8 - 12 Fluid Ounces per Minute



Gun Set Up: Siphon Feed: 1.3 - 1.5 mm 0.051 - 0.059 fluid tip  
HVLV: 1.3 - 1.5 mm 0.051 - 0.059 fluid tip  
Pressure Pot: 1.0 - 1.2 mm 0.039 - 0.047 fluid tip

# 274808SP/01 Black, 274908SP/01 White

## Directions for Use

### Application:



Apply:

Apply two full wet coats, allowing proper flash time\* between coats.  
Apply additional coats as necessary to achieve total dry film thickness.  
**\*Flash times will vary dependent upon film thickness, temperature, solvent selection, spray gun set-up, application, etc.**

Recommended  
Film Thickness:

	Per Coat Application	Total Application
Wet Film Thickness (WFT)	2.0 - 3.0 mils	4.0 - 6.0 mils
Dry Film Thickness (DFT)	0.8 - 1.2 mils	1.6 - 2.4 mils

**Caution:** All 2-component crosslinking slows significantly at temperatures below 60°F or 16°C. Never spray or subject freshly painted coatings to these conditions or loss of gloss, decreased durability and improper curing can occur.

### Estimated Drying Times:



Air-Dry @ 50% Relative Humidity, 70°F/21°C  
Dust Free 20 - 30 minutes  
Dry to Touch 25 - 35 minutes  
Dry to Handle 30 - 45 minutes  
Dry to Topcoat 30 minutes - 24 hours (max)\*

\*After 24 hours, sand with a 220-400 grit dry, or equivalent sanding pad. Do not sand below minimum dry film thickness, otherwise reprime before topcoating.

### Equipment Cleaning:

Clean equipment promptly with lacquer thinner or equivalent cleaning solvent.

**Note: Do not leave mixed material in equipment.**

### Technical Data:

#### 3.5 VOC Information

VOC Actual RTS	2.64 lbs/gal
VOC Actual RTS	316 g/L
VOC Regulatory (less water less exempt) RTS	3.3 lbs/gal
VOC Regulatory (less water less exempt) RTS	395 g/L

#### Above 3.5 VOC\* Information

VOC Actual RTS	4.07 lbs/gal
VOC Actual RTS	487 g/L
VOC Regulatory (less water less exempt) RTS	4.07 lbs/gal
VOC Regulatory (less water less exempt) RTS	487 g/L

\*>3.5 VOC calculations when using 45 290SP as an example

For complete VOC information, visit [MatthewsPaint.com](http://MatthewsPaint.com) > Quick Links > VOC Data

#### Performance Characteristics

Volume solids (RTS)	42.8%
Theoretical Coverage (1 mil @ 100% transfer efficiency)	685 sq.ft./RTS gal
Application Conditions - Temperature	60°F (16°C) Minimum 100°F (38°C) Maximum
Application Conditions - Relative Humidity	85% maximum 5° above dew point

**Important:** The contents of this package may have to be blended with other components before the product can be used. Before opening the packages, be sure you understand the warning messages on the labels of all components, since the mixture will have the hazards of all its parts. Improper spray technique may result in a hazardous condition. Follow spray equipment manufacturer's instructions to prevent personal injury or fire. Follow directions for respirator use. Wear eye and skin protection. Observe all applicable precautions.

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## Ultra Low VOC Epoxy Primer

# MAP-LVU100/01

MAP-LVU100/01 is a white 2K epoxy primer formulated to deliver less than 50 g/L VOC at application.

This chemically cross-linked coating is designed to offer outstanding adhesion and corrosion resistance over properly prepared substrates.

It can be applied by brush and roll application as well as by spray, and it is compatible with MAP® series topcoats.



### Features:

Ultra Low VOC technology .....	Environmentally friendly, meets the most stringent VOC regulations
Chromate-free .....	Meets EPA regulations for chromate restrictions
Topcoat with any Matthews Acrylic Polyurethane finishes .....	Versatile, multi-purpose
Compatible over various substrates .....	For multiple applications, fewer products to stock
Brush and roll capability .....	For use in areas where air spraying is prohibited
Epoxy technology .....	Excellent corrosion resistance, superior adhesion to substrate
Excellent filling properties .....	Capable of hiding minor metal substrate defects
Easy mix ratio .....	Less time mixing
24 hour topcoat window .....	No sanding required prior to topcoating within window

### Benefits:

### Compatible Surfaces:

MAP-LVU100/01 Primer may be applied over properly prepared:

Steel	Aluminum	Body filler
Blasted steel	Fiberglass	Masonry
Carbon steel	Previously painted surfaces	Wood
Galvanized steel		

### Associated Products:

#### Catalyst

MAP-LVX101/04 Catalyst

#### Reducer

MAP-LVRU01/04 Exempt Low VOC Primer Reducer

# MAP-LVU100/01

## Directions for Use

**Surface Preparation:** Substrate should be prepared according to Matthews Substrate Preparation Guide prior to primer application.

**Mix Ratio:**



Mix Ratio for Spraying (by volume)

MAP-LVU100/01    MAP-LVX101/04    MAP-LVRU01/04

3 parts

1 part

1 part

- All components should be mixed thoroughly before using
- Strain material after mixing



**Pot Life:** 8 hours

Pot-life is the amount of time before spray viscosity doubles. These are estimates based on lab results at 50% relative humidity, 70°F/21°C—results will vary based on application conditions. Note: mix no more product than can be used within pot life.

**Additives:**



None

**Spray Set Up:**



Air Pressure:

Conventional:

40 - 50 psi at the gun\*

HVLP:

10 psi at the cap\*

\* Refer to spray gun manufacturer recommendations for inlet pressure.



Pressure Pot Fluid Delivery:

8 - 12 Fluid Ounces per Minute



Gun Set Up:

Siphon Feed:

1.3 - 1.5 mm 0.051 - 0.059 fluid tip

HVLP:

1.3 - 1.5 mm 0.051 - 0.059 fluid tip

Pressure Pot:

1.0 - 1.2 mm 0.039 - 0.047 fluid tip

# MAP-LVU100/01

## Directions for Use

### Application:



Apply:

Apply one to two full wet coats, allowing proper flash time\* between coats.  
Apply additional coats as necessary to achieve total dry film thickness.  
**\*Flash times will vary dependent upon film thickness, temperature, solvent selection, spray gun set-up, application, etc.**

Recommended  
Film Thickness:

	One Coat Application	Two Coat Application
Wet Film Thickness (WFT)	3 mils	6 mils
Dry Film Thickness (DFT)	1.5 mils (minimum)	3 mils

**Caution:** All 2-component crosslinking slows significantly at temperatures below 60°F or 16°C. Never spray or subject freshly painted coatings to these conditions or loss of gloss, decreased durability and improper curing can occur.

### Estimated Drying Times:



Air-Dry @ 50% Relative Humidity, 70°F/21°C

Dust Free 15 - 20 minutes  
Dry to Touch 45 minutes - 1 hour  
Dry to Handle 1.5 - 2 hours  
Dry to Topcoat (spray) 30 minutes  
Dry to Topcoat (brush/roll) 1.5 - 2.5 hours

\*After 24 hours, sand with a 220-400 grit dry, or equivalent sanding pad. Do not sand below minimum dry film thickness, otherwise reprime before topcoating.

### Equipment Cleaning:

Clean equipment promptly with lacquer thinner or equivalent cleaning solvent.  
**Note: Do not leave mixed material in equipment.**

### Technical Data:

#### VOC Information

VOC Actual RTS	0.22 lbs/gal
VOC Actual RTS	26 g/L
VOC Regulatory (less water less exempt) RTS	0.41 lbs/gal
VOC Regulatory (less water less exempt) RTS	49 g/l

For complete VOC information, visit [MatthewsPaint.com](http://MatthewsPaint.com) > Quick Links > VOC Data

#### Performance Characteristics

Volume solids (RTS)	50.8%
Theoretical Coverage (1 mil @ 100% transfer efficiency)	815 sq.ft./RTS gal
Application Conditions - Temperature	60°F (16°C) Minimum 100°F (38°C) Maximum
Application Conditions - Relative Humidity	85% maximum 5° above dew point

# MAP-LVU100/01 **Ultra Low VOC Epoxy Primer**

**Important:** The contents of this package may have to be blended with other components before the product can be used. Before opening the packages, be sure you understand the warning messages on the labels of all components, since the mixture will have the hazards of all its parts. Improper spray technique may result in a hazardous condition. Follow spray equipment manufacturer's instructions to prevent personal injury or fire. Follow directions for respirator use. Wear eye and skin protection. Observe all applicable precautions.

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**Tie Bond Adhesive**

# 274777SP/01

Matthews Tie Bond is a single component spray applied adhesion promoter designed to provide excellent adhesion over various acrylic and PVC substrates.

The application of Tie Bond directly to the plastic's surface eliminates the need for a scuffing process.

Tie Bond is water clear and is an excellent choice as an adhesion promoter when applying Matthews Acrylic Polyurethane finishes.

274777SP/01 Tie Bond is near zero VOC and ready to spray as packaged.



<b>Features:</b>	<b>Benefits:</b>
Compatible over most acrylic/PVC substrates .....	Improved adhesion for any Matthews topcoat
Ready to spray.....	No mixing; No pot life
Near zero VOC .....	Environmentally friendly; Meets most stringent VOC regulations

**Compatible Surfaces:**

**274777SP/01 Tie Bond Adhesive may be applied over properly prepared:**

- Acrylic
- Photopolymers
- Polycarbonate\*
- Expanded Polyvinyl Chloride (PVC)
- Trim Cap (Jewelite)

**Note:** Generic families of plastic substrates may differ slightly in their manufacturing process and therefore exhibit different adhesion and application characteristics. Matthews recommends an adhesion test to specific (brand) substrates prior to implementing a coating program.

\*The use of Tie Bond or any Matthews Polyurethane topcoats over polycarbonate will alter its impact strength.

**Warning:**

Tie Bond can not be used directly under 6178SP/01 HP Clear. (Refer to Technical Data Sheet MPC182.)

# 274777SP/01

## Directions for Use

**Surface Preparation:** Substrate should be prepared according to Matthews Substrate Preparation Guide prior to primer application.

**Mix Ratio:** 

- Must be shaken or stirred prior to use
- Strain material after mixing

**Additives:**  None

**Spray Set Up:**

	Air Pressure:	Conventional:	40 - 50 psi at the gun*
		HVLP:	10 psi at the cap*
<i>* Refer to spray gun manufacturer recommendations for inlet pressure.</i>			
	Pressure Pot Fluid Delivery:	8 - 12 Fluid Ounces per Minute	
	Gun Set Up:	Siphon Feed:	1.2 - 1.4 mm 0.047 - 0.055 fluid tip
		HVLP:	1.2 - 1.4 mm 0.047 - 0.055 fluid tip
		Pressure Pot:	1.0 - 1.2 mm 0.039 - 0.047 fluid tip

# 274777SP/01

## Directions for Use

### Application:



Apply:

Apply two to three medium wet coats, allowing proper flash time\* between coats.

\*Flash times will vary dependent upon film thickness, temperature, spray gun set-up, application, etc.

### Estimated Drying Times:



Air-Dry @ 50% Relative Humidity, 70°F/21°C

Dry to Topcoat 5 - 10 minutes

**Note:** After 1 hour, apply an additional coat of 274777SP/01 prior to topcoating.

### Equipment Cleaning:

Clean equipment promptly with lacquer thinner or equivalent cleaning solvent.

**Note: Do not leave mixed material in equipment.**

### Technical Data:

#### VOC Information

VOC Actual RTS	0.0 lbs/gal
VOC Actual RTS	0.0 g/L
VOC Regulatory (less water less exempt) RTS	0.01 lbs/gal
VOC Regulatory (less water less exempt) RTS	1 g/L

For complete VOC information, visit [MatthewsPaint.com](http://MatthewsPaint.com) > Quick Links > VOC Data

#### Performance Characteristics

Volume solids (RTS)	8.3%
Theoretical Coverage (1 mil @ 100% transfer efficiency)	133 sq.ft./RTS gal
Application Conditions - Temperature	60°F (16°C) Minimum 100°F (38°C) Maximum
Application Conditions - Relative Humidity	85% maximum 5° above dew point

# 274777SP/01

**Tie Bond Adhesive**

**Important:** The contents of this package may have to be blended with other components before the product can be used. Before opening the packages, be sure you understand the warning messages on the labels of all components, since the mixture will have the hazards of all its parts. Improper spray technique may result in a hazardous condition. Follow spray equipment manufacturer's instructions to prevent personal injury or fire. Follow directions for respirator use. Wear eye and skin protection. Observe all applicable precautions.

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## Tie Bond Adhesive

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# 74777SP/01

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Matthews Tie Bond is a single component spray applied adhesion promoter designed to provide excellent adhesion over various acrylic and PVC substrates.

The application of Tie Bond directly to the plastic's surface eliminates the need for a scuffing process.

Tie Bond is an excellent choice as an adhesion promoter when applying Matthews Acrylic Polyurethane finishes.



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### Features:

Compatible over most acrylic/PVC substrates .....Improved adhesion for any Matthews topcoat  
Reduce with any Matthews conventional, 2.8 or 3.5 VOC reducer .....No pot life

### Benefits:

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### Compatible Surfaces:

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**74777SP/01 Tie Bond Adhesive may be applied over properly prepared:**

- Acrylic
- Photopolymers
- Polycarbonate\*
- Expanded Polyvinyl Chloride (PVC)
- Trim Cap (Jewelite)

**Note:** Generic families of plastic substrates may differ slightly in their manufacturing process and therefore exhibit different adhesion and application characteristics. Matthews recommends an adhesion test to specific (brand) substrates prior to implementing a coating program.

\*The use of Tie Bond or any Matthews Polyurethane topcoats over polycarbonate will alter its impact strength.

### Warning:

Tie Bond can not be used directly under 6178SP/01 HP Clear. (Refer to Technical Data Sheet MPC182.)

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### Associated Products:

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#### Reducer

- 6379SP/01 Cool temperature, 60 - 75°F (16 - 24°C)
- 45280SP/01 Warm temperature, 70 - 80°F (21 - 27°C)
- 45290SP/01 Very warm temperature, 75 - 85°F (24 - 29°C)
- 6396SP/01 Hot temperature, 80°F (27°C) & above

# 74777SP/01

## Directions for Use

### Surface Preparation:

Substrate should be prepared according to Matthews Substrate Preparation Guide prior to primer application.

### Mix Ratio:



Mix Ratio for Spraying (by volume)

74777SP/01 Tie Bond    MAP Reducer\*

2 parts

1/2 - 1-1/2 parts

**\*Choose MAP reducer**

- 6379SP/01 Cool temperature, 60 - 75°F (16 - 24°C)
- 45280SP/01 Warm temperature, 70 - 80°F (21 - 27°C)
- 45290SP/01 Very warm temperature, 75 - 85°F (24 - 29°C)
- 6396SP/01 Hot temperature, 80°F (27°C) & above

NOTE: Larger jobs may require a hotter temperature reducer.

All components should be mixed thoroughly before using.

Strain material after mixing.

### Additives:



None

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### Spray Set Up:



Air Pressure:

Conventional:

40 - 50 psi at the gun\*

HVLP:

10 psi at the cap\*

**\* Refer to spray gun manufacturer recommendations for inlet pressure.**



Pressure Pot Fluid Delivery:

8 - 12 Fluid Ounces per Minute



Gun Set Up:

Siphon Feed:

1.2 - 1.4 mm 0.047 - 0.055 fluid tip

HVLP:

1.2 - 1.4 mm 0.047 - 0.055 fluid tip

Pressure Pot:

1.0 - 1.2 mm 0.039 - 0.047 fluid tip

# 74777SP/01

## Directions for Use

### Application:



Apply:

Apply two to three medium wet coats, allowing proper flash time\* between coats.

\*Flash times will vary dependent upon film thickness, temperature, solvent selection, spray gun set-up, application, etc.

### Estimated Drying Times:



Air-Dry @ 50% Relative Humidity, 70°F/21°C

Dry to Topcoat 5 - 10 minutes

**Note:** After 1 hour, apply an additional coat of 74777SP/01 prior to topcoating.

### Equipment Cleaning:

Clean equipment promptly with lacquer thinner or equivalent cleaning solvent.

**Note: Do not leave mixed material in equipment.**

### Technical Data:

#### VOC Information

VOC Actual RTS 6.4 - 6.6 lbs/gal

VOC Actual RTS 767 - 791 g/L

VOC Regulatory (less water less exempt) RTS 6.4 - 6.6 lbs/gal

VOC Regulatory (less water less exempt) RTS 767 - 791 g/L

For complete VOC information, visit [MatthewsPaint.com](http://MatthewsPaint.com) > Quick Links > VOC Data

#### Performance Characteristics

Volume solids (RTS) 8.4 - 11.8%

Theoretical Coverage (1 mil @ 100% transfer efficiency) 135-190 sq.ft./RTS gal

Application Conditions - Temperature 60°F (16°C) Minimum

100°F (38°C) Maximum

Application Conditions - Relative Humidity 85% maximum 5° above dew point

# 74777SP/01

**Tie Bond Adhesive**

**Important:** The contents of this package may have to be blended with other components before the product can be used. Before opening the packages, be sure you understand the warning messages on the labels of all components, since the mixture will have the hazards of all its parts. Improper spray technique may result in a hazardous condition. Follow spray equipment manufacturer's instructions to prevent personal injury or fire. Follow directions for respirator use. Wear eye and skin protection. Observe all applicable precautions.

**See Safety Data Sheet and Labels for additional safety information and handling instructions.**

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**Spray Bond Adhesive**

# 274793SP/01

Matthews 274793SP/01 Spray Bond is a single component spray applied adhesive designed to provide excellent adhesion when applying Matthews Clears to bare metal.

Spray Bond is water clear in color, which makes it an excellent choice to protect and highlight underlying metals.

274793SP/01 Spray Bond is near zero VOC and ready to spray as packaged.



**Features:**

**Benefits:**

Ready to spray.....	No mixing; No pot life
Near zero VOC.....	Environmentally friendly; Meets most stringent VOC regulations
Compatible over most metal substrates.....	Can be clearcoated with most Matthews clear finishes
Water clear.....	Won't discolor bare metal substrate

**Compatible Surfaces:**

**274793SP/01 Spray Bond Adhesive may be applied over properly prepared:**

- Polished or Brushed Aluminum
- Brass
- Bronze
- Copper

**Note:** Spray Bond is not intended as a corrosion inhibiting coating and will not protect metals from rust or other forms of oxidation breakdown. When clearcoating metals that are prone to tarnish, such as brass and copper, Braco Clear should be used (refer to Technical Data Sheet MPC173 or MPC174).

**Warning:**

Spray Bond can not be used directly under 6178SP/01 HP Clear. (Refer to Technical Data Sheet MPC182.)

# 274793SP/01

## Directions for Use

### Surface Preparation:

Substrate should be prepared according to Matthews Substrate Preparation Guide prior to primer application.

### Mix Ratio:



- Must be shaken or stirred prior to use
- Strain material after mixing

### Additives:



None

### Spray Set Up:



Air Pressure:

Conventional:

40 - 50 psi at the gun\*

HVLP:

10 psi at the cap\*

\* Refer to spray gun manufacturer recommendations for inlet pressure.



Pressure Pot Fluid Delivery:

8 - 12 Fluid Ounces per Minute



Gun Set Up:

Siphon Feed:

1.2 - 1.4 mm 0.047 - 0.055 fluid tip

HVLP:

1.2 - 1.4 mm 0.047 - 0.055 fluid tip

Pressure Pot:

1.0 - 1.2 mm 0.039 - 0.047 fluid tip

# 274793SP/01

## Directions for Use

### Application:



Apply:

Apply two to three medium wet coats, allowing proper flash time\* between coats.

\*Flash times will vary dependent upon film thickness, temperature, spray gun set-up, application, etc.

### Estimated Drying Times:



Air-Dry @ 50% Relative Humidity, 70°F/21°C

Dry to Clearcoat 5 - 10 minutes

**Note:** After 1 hour, apply an additional coat of 274793SP/01 prior to clearcoating.

### Equipment Cleaning:

Clean equipment promptly with lacquer thinner or equivalent cleaning solvent.

**Note: Do not leave mixed material in equipment.**

### Technical Data:

#### VOC Information

VOC Actual RTS 0.0 lbs/gal

VOC Actual RTS 0.0 g/L

VOC Regulatory (less water less exempt) RTS 0.01 lbs/gal

VOC Regulatory (less water less exempt) RTS 1 g/L

For complete VOC information, visit [MatthewsPaint.com](http://MatthewsPaint.com) > Quick Links > VOC Data

#### Performance Characteristics

Volume solids (RTS) 2.5%

Theoretical Coverage (1 mil @ 100% transfer efficiency) 40 sq.ft./RTS gal

Application Conditions - Temperature 60°F (16°C) Minimum

100°F (38°C) Maximum

Application Conditions - Relative Humidity

85% maximum 5° above dew point

# 274793SP/01

## Spray Bond Adhesive

**Important:** The contents of this package may have to be blended with other components before the product can be used. Before opening the packages, be sure you understand the warning messages on the labels of all components, since the mixture will have the hazards of all its parts. Improper spray technique may result in a hazardous condition. Follow spray equipment manufacturer's instructions to prevent personal injury or fire. Follow directions for respirator use. Wear eye and skin protection. Observe all applicable precautions.

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## Polyester Primer Surfacer

# 6001SP/01

6001SP/01 Polyester Primer Surfacer is a gray fast drying, two component, high build primer surfacer.

6001SP/01 is an excellent primer surfacer to use on sign foam, wood, or any substrate that requires a high fill.



### Features:

Low VOC technology .....Environmentally friendly; Complies with most stringent VOC requirements  
 Chromate-free.....Meets EPA regulations for chromate restrictions  
 Compatible over various substrates.....Versatile for multiple applications  
 Brush and roll capability .....For use in areas where air spraying is prohibited  
 Polyester technology.....Provides superior filling and sanding capabilities; Fast drying  
 High solids .....Builds quickly with less coats; Excellent filling properties  
 Easy mix ratio .....Less time mixing

### Benefits:

### Compatible Surfaces:

**6001SP/01 Polyester Primer Surfacer may be applied over properly prepared:**

Steel	HDU	274530SP/01 2.1 VOC White Epoxy Primer
Blasted steel	Previously painted surfaces	274531SP/01 2.1 VOC Black Epoxy Primer
Carbon steel	6007SP/01 3.5 Gray Epoxy Primer	LVU100/01 Ultra Low VOC Epoxy Primer
Aluminum	274685SP/01 U Prime	SMP001A/01 Epoxy Gray Primer
Fiberglass	SMHB404A/01 Urethane Filler	SMP002A/01 Epoxy White Primer
Body filler	274808SP/01 Black Epoxy Primer	
Masonry	274908SP/01 White Epoxy Primer	
Wood	274528SP/01 2.1 VOC Gray Epoxy Primer	

**NOTE:** Do not apply over any acid etching primers.

### Associated Products:

#### Catalyst

6201SP/1Z Polyester Primer Surfacer Hardener

# 6001SP/01

## Directions for Use

### Surface Preparation:

Substrate should be prepared according to Matthews Substrate Preparation Guide prior to primer application.

### Mix Ratio:



Mix Ratio for Spraying (by volume)

6001SP/01 Polyester Primer Surfacer : 6201SP/1Z Polyester Primer Surfacer Hardener  
1 Quart (32 fluid oz.) : 1 Tube (0.75 fluid oz.)



**Pot Life:** 30-40 minutes

Pot-life is the amount of time before spray viscosity doubles. These are estimates based on lab results at 50% relative humidity, 70°F/21°C—results will vary based on application conditions. Note: mix no more product than can be used within pot life.

### Additives:



None

### Spray Set Up:



Air Pressure:

Conventional: 40 - 50 psi at the gun\*

HVLP: 10 psi at the cap\*

\* Refer to spray gun manufacturer recommendations for inlet pressure.



Gun Set Up:

Siphon Feed: 2.0 - 2.5 mm 0.078 - 0.098 fluid tip

HVLP: 2.0 - 2.5 mm 0.078 - 0.098 fluid tip

# 6001SP/01

## Directions for Use

### Application:



#### Apply:

Apply two full wet coats, allowing proper flash time\* between coats. Apply additional coats as necessary to achieve desired filling.

\*Flash times will vary dependent upon film thickness, temperature, spray gun set-up, application, etc.

Recommended Film Thickness:	Wet Film Thickness (WFT)	Per Coat	Total
		3-4 mils	6-8 mils
	Dry Film Thickness (DFT)	1.8-2.4 mils	3.6-4.8

**Caution:** All 2-component crosslinking slows significantly at temperatures below 60°F or 16°C. Never spray or subject freshly painted coatings to these conditions or loss of gloss, decreased durability and improper curing can occur.

### Estimated Drying Times:



Air-Dry @ 50% Relative Humidity, 70°F/21°C

Dust Free 20 minutes

Dry to Touch 30 minutes

Dry to Handle 1 hour

Dry to Sand 1.5 hours

For optimal results, dry sand with 180 - 320g prior to topcoating.

Topcoat After finish sanding with 320g, blowing and tacking

**Note:** Do not sand below minimum film thickness of 2.0 dry mils, otherwise re-prime before topcoating.

### Equipment Cleaning:

Clean equipment promptly with lacquer thinner or equivalent cleaning solvent.

**Note: Do not leave mixed material in equipment.**

### Technical Data:

#### VOC Information

VOC Actual RTS	1.97 lbs/gal
VOC Actual RTS	236 g/L
VOC Regulatory (less water less exempt) RTS	2.50 lbs/gal
VOC Regulatory (less water less exempt) RTS	299 g/L

For complete VOC information, visit [MatthewsPaint.com](http://MatthewsPaint.com) > Quick Links > VOC Data

#### Performance Characteristics

Volume solids (RTS)	51.9%
Theoretical Coverage (1 mil @ 100% transfer efficiency)	800 sq.ft./RTS gal
Application Conditions - Temperature	60°F (16°C) Minimum 100°F (38°C) Maximum
Application Conditions - Relative Humidity	85% maximum 5° above dew point

# 6001SP/01

## Polyester Primer Surfacer

**Important:** The contents of this package may have to be blended with other components before the product can be used. Before opening the packages, be sure you understand the warning messages on the labels of all components, since the mixture will have the hazards of all its parts. Improper spray technique may result in a hazardous condition. Follow spray equipment manufacturer's instructions to prevent personal injury or fire. Follow directions for respirator use. Wear eye and skin protection. Observe all applicable precautions.

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## U-Prime White Urethane Primer

# 274685SP/01

274685SP/01 U-Prime is a two-component urethane primer. When mixed according to directions, U-Prime will comply with emissions requiring a VOC level of 2.8 lbs./gal to 3.5 lbs./gal.

U-Prime has good adhesion to a wide range of properly prepared and cleaned substrates and is an excellent undercoat for all MAP® topcoats.

274685SP/01 is an excellent undercoat for all MAP® topcoats.



### Features:

Low VOC technology .....	Environmentally friendly; Meets 2.8 or 3.5 VOC regulations
Chromate-free.....	Meets EPA regulations for chromate restrictions
Topcoat with any Matthews Acrylic Polyurethane finishes.....	Versatile, multi-purpose
Compatible over various substrates.....	For multiple applications; Fewer products to stock
Brush and roll capability .....	For use in areas where air spraying is prohibited
2K Urethane technology.....	Provides excellent adhesion and long-term durability
Excellent filling properties.....	Capable of hiding minor metal substrate defects
24 hour topcoat window .....	No sanding required prior to topcoating within window

### Benefits:

### Compatible Surfaces:

#### 274685SP/01 U-Prime may be applied over properly prepared:

Steel	Aluminum	Masonry
Blasted steel	Fiberglass	Wood
Carbon steel	Previously painted surfaces	HDU
Galvanized steel	Body filler	

### Associated Products:

#### Catalyst

274686SP/01 U-Prime Hardener

#### 3.5 VOC Reducer

6300SP/01 Cool temperature, 60 - 75°F (16 - 24°C)  
 6301SP/01 Warm temperature, 70 - 85°F (21 - 29°C)  
 6302SP/01 Hot temperature, 80°F (27°C) & above

#### 2.8 VOC Reducer

6370SP/01 Cool temperature, 60 - 75°F (16 - 24°C)  
 6371SP/01 Warm temperature, 70 - 85°F (21 - 29°C)  
 6372SP/01 Hot temperature, 80°F (27°C) & above

#### Accelerator

287437SP/08 HS Accelerator

# 274685SP/01

## Directions for Use

**Surface Preparation:** Substrate should be prepared according to Matthews Substrate Preparation Guide prior to primer application.

**Mix Ratio:**



Mix Ratio for Spraying (by volume)

274685SP/01	274686SP/01		287437SP/08
U-Prime	U-Prime Hardener	Reducer*	Accelerator (required)
5 parts	1 part	1 part	1.5 oz./RTS qt

\*Choose VOC MAP reducer

**3.5 VOC Reducer**

- 6300SP/01 Cool temperature, 60 - 75°F (16 - 24°C)
- 6301SP/01 Warm temperature, 70 - 85°F (21 - 29°C)
- 6302SP/01 Hot temperature, 80°F (27°C) & above

**2.8 VOC Reducer**

- 6370SP/01 Cool temperature, 60 - 75°F (16 - 24°C)
- 6371SP/01 Warm temperature, 70 - 85°F (21 - 29°C)
- 6372SP/01 Hot temperature, 80°F (27°C) & above

NOTE: Larger jobs may require a hotter temperature reducer.

All components should be mixed thoroughly before using

Strain material after mixing



**Pot Life:** 3 hours

Pot-life is the amount of time before spray viscosity doubles. These are estimates based on lab results at 50% relative humidity, 70°F/21°C—results will vary based on application conditions, reducer selection, and accelerator choice.

Note: mix no more product than can be used within pot life.

**Additives:**



None

# 274685SP/01

## Directions for Use

### Spray Set Up:



Air Pressure: Conventional: 40 - 50 psi at the gun\*  
HVLP: 10 psi at the cap\*  
\* Refer to spray gun manufacturer recommendations for inlet pressure.



Pressure Pot Fluid Delivery: 8 - 12 Fluid Ounces per Minute



Gun Set Up: Siphon Feed: 1.4 - 1.6 mm 0.055 - 0.063 fluid tip  
HVLP: 1.4 - 1.6 mm 0.055 - 0.063 fluid tip  
Pressure Pot: 1.0 - 1.2 mm 0.039 - 0.047 fluid tip

### Application:



Apply: Apply two full wet coats, allowing proper flash time\* between coats. Apply additional coats as necessary to achieve total dry film thickness.  
\*Flash times will vary dependent upon film thickness, temperature, solvent selection, spray gun set-up, application, etc.

Recommended Film Thickness:		Per Coat	Total
Wet Film Thickness (WFT)		2.0-2.5 mils	4.0-5.0 mils
Dry Film Thickness (DFT)		1 mils	2 mils

**Caution:** All 2-component crosslinking slows significantly at temperatures below 60°F or 16°C. Never spray or subject freshly painted coatings to these conditions or loss of gloss, decreased durability and improper curing can occur.

### Estimated Drying Times:



Air-Dry @ 50% Relative Humidity, 70°F/21°C  
Dust Free 15 - 20 minutes  
Dry to Touch 30 minutes  
Dry to Handle 1 hour  
Dry to Topcoat 30 minutes - 24 hours (max)\*  
Dry to Sand (optional) 16 hours

\*After 24 hours sand with a 320 - 400 grit (wet or dry) before proceeding to the next undercoat or topcoat. Do not sand below minimum dry film thickness.

### Equipment Cleaning:

Clean equipment promptly with lacquer thinner or equivalent cleaning solvent.  
**Note: Do not leave mixed material in equipment.**

# 274685SP/01

## U-Prime White Urethane Primer

### Technical Data:

#### 3.5 VOC Information

VOC Actual RTS	2.72 lbs/gal
VOC Actual RTS	326 g/L
VOC Regulatory (less water less exempt) RTS	3.05 lbs/gal
VOC Regulatory (less water less exempt) RTS	365 g/L

#### 2.8 VOC Information

VOC Actual RTS	2.28 lbs/gal
VOC Actual RTS	273 g/L
VOC Regulatory (less water less exempt) RTS	2.77 lbs/gal
VOC Regulatory (less water less exempt) RTS	332 g/L

For complete VOC information, visit [MatthewsPaint.com](http://MatthewsPaint.com) > Quick Links > VOC Data

#### Performance Characteristics

Volume solids (RTS)	43%
Theoretical Coverage (1 mil @ 100% transfer efficiency)	819 sq.ft./RTS gal
Application Conditions - Temperature	60°F (16°C) Minimum 100°F (38°C) Maximum
Application Conditions - Relative Humidity	85% maximum 5° above dew point

**Important:** The contents of this package may have to be blended with other components before the product can be used. Before opening the packages, be sure you understand the warning messages on the labels of all components, since the mixture will have the hazards of all its parts. Improper spray technique may result in a hazardous condition. Follow spray equipment manufacturer's instructions to prevent personal injury or fire. Follow directions for respirator use. Wear eye and skin protection. Observe all applicable precautions.

**See Safety Data Sheet and Labels for additional safety information and handling instructions.**

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**Matthews Topcoats** provide a long-lasting, UV resistant finish that boasts unsurpassed color and gloss retention. With three different lines to choose from—including the environmentally friendly MAP Ultra Low VOC—and unlimited color options, there is a topcoat to meet any project requirement.

## Technical Data Sheets

Satin Acrylic Polyurethane .....	175-178
Gloss Acrylic Polyurethane .....	179-182
Low VOC Satin Acrylic Polyurethane .....	183-186
Ultra Low VOC Satin Acrylic Polyurethane .....	187-190
Ultra Low VOC Gloss Acrylic Polyurethane .....	191-194
EZ Spray AER2K10/EZ, AER2K15/EZ 2-Part Acrylic Polyurethane Aerosol .....	195-198
EZ Spray MAP-LV2K10/EZ, MAP-LV2K15/EZ 2-Part Acrylic Polyurethane Aerosol .....	199-202

## The Complete Matthews Paint System







## Matthews Acrylic Polyurethane

# Satin MAP<sup>®</sup>

Matthews Acrylic Polyurethane Satin MAP incorporates the same quality performance of MAP<sup>®</sup> but in a uniform satin finish. Satin MAP produces a “Satin-in-the Can” gloss level. Ideal substrates include signage components, graphic arts and architectural metals. Satin MAP is also suitable for use on metal, wood and various plastics. Satin MAP is available in standard colors plus an unlimited selection of custom colors.



### Features:

### Benefits:

Satin-in-the-can .....No additional flattening agent needed; Consistent gloss and finish; Less time to mix  
 Air-dry or force-dry capable.....Fits most shop conditions  
 Excellent UV resistance .....Excellent color and gloss retention; Extended life cycle; Reduced maintenance costs  
 2K Acrylic polyurethane .....Resistance to weathering; Resistance to chalking; Long-term durability  
 Brush and roll capability .....For use in areas where air spraying is prohibited

### Compatible Surfaces:

**Satin MAP Acrylic Polyurethane may be applied over properly prepared:**

6001SP/01 Polyester Primer Surfacer	274530SP/01 2.1 VOC White Epoxy Primer	74780SP/01 HBEF
6007SP/01 3.5 Gray Epoxy Primer	274531SP/01 2.1 VOC Black Epoxy Primer	74777SP/01 Tie Bond
274685SP/01 U Prime	74350SP/01 3.5 Non-Chromate Primer	274777SP/01 Low VOC Tie Bond
274808SP/01 Black Epoxy Primer	74734SP/01 Metal Pretreatment	274793SP/01 Low VOC Spray Bond
274908SP/01 White Epoxy Primer	74760SP/01 PT Filler	LVU100/01 Ultra Low VOC Epoxy Primer
274528SP/01 2.1 VOC Gray Epoxy Primer	74770SP/01 HBPT	

### Associated Products:

#### Catalyst

43270SP/01\* Universal Catalyst  
 43621SP/04 Brushing Catalyst  
 (For brush or roller application)  
 43999SP/01 Slow Catalyst  
 (For hot weather, bake application  
 or for very large substrates)

\*Also available in /04

#### Reducer

6379SP/01 Cool temperature, 60 - 75°F (16 - 24°C)  
 45280SP/01 Warm temperature, 70 - 80°F (21 - 27°C)  
 45290SP/01 Very warm temperature, 75 - 85°F (24 - 29°C)  
 6396SP/01 Hot temperature, 80°F (27°C) & above  
 45251SP/01 Retarder, to be blended up to 50%  
 with reducer. Not to be used by itself.

#### Accelerator

287437SP/08 HS Accelerator  
 47117SP/04 MAP Accelerator  
 287484SP/08 HS Turbo Enhancer  
 MAP-LVA117/08 Ultra Low VOC Accelerator

# Satin MAP<sup>®</sup>

## Directions for Use

**Surface Preparation:** Substrate should be prepared according to Matthews Substrate Preparation Guide prior to topcoat application.

**Mix Ratio:**



Mix Ratio for Spraying (by volume)

Satin MAP	43270SP/04*, 43999SP/01	Reducer**	with Accelerator
3 parts	1 part	1 part	Optional***

\*Also available in /04

\*\*Choose MAP reducer

- 6379SP/01 Cool temperature, 60 - 75°F (16 - 24°C)
- 45280SP/01 Warm temperature, 70 - 80°F (21 - 27°C)
- 45290SP/01 Very warm temperature, 75 - 85°F (24 - 29°C)
- 6396SP/01 Hot temperature, 80°F (27°C) & above
- 45251SP/01 Retarder, to be blended up to 50% with reducer. Not to be used by itself.
- NOTE: Larger jobs may require a hotter temperature reducer.

\*\*\*Refer to MPC218 for optional accelerators and amounts.

- For Brushing and Rolling, refer to Technical Data Sheet MPC159.
- All components should be mixed thoroughly before using
- Strain material after mixing



**Pot Life:** Pot-life is the amount of time before spray viscosity doubles. These are estimates based on lab results at 50% relative humidity, 70°F/21°C—results will vary based on application conditions, reducer selection, and accelerator choice.

Note: mix no more product than can be used within time limits listed below:

Application Method	Accelerator*	Max load of accelerator per RTS qt	Pot-Life
Spraying	Without Accelerator		8 hours
	287437SP/08	1.5 oz	2 hours
	MAP-LVA117/08	1 oz	45 min
	47117SP/04	1 oz	1 hour
	287484SP/08	.5 oz	1 hour
Brush and Roll	Accelerator is Not Recommended when brushing or rolling		8 hours

\*Times listed in the chart above are for a full load of accelerator. Refer to MPC218 for optional accelerators and amounts.

**Additives:**



None required, but the following may be used for specific application or project needs:

- 47888SP/01 Flattening Paste (refer to MPC204)
- 287112SP/04 Medium Suede Additive
- 287113SP/04 Suede Additive
- 287103SP/01 Low VOC Basecoat Converter
- 47444SP/04 Brush/Roller Additive
- 47474SP/04 Flex Additive
- SOA955SP/01 Matting Clear (refer to MPC205)

# Satin MAP<sup>®</sup>

## Directions for Use

### Spray Set Up:



Air Pressure: Conventional: 40 - 50 psi at the gun\*  
 HVLP: 10 psi at the cap\*  
 \* Refer to spray gun manufacturer recommendations for inlet pressure.



Pressure Pot Fluid Delivery: 8 - 12 Fluid Ounces per Minute



Gun Set Up: Siphon Feed: 1.2 - 1.4 mm 0.047 - 0.055 fluid tip  
 HVLP: 1.2 - 1.4 mm 0.047 - 0.055 fluid tip  
 Pressure Pot: 1.0 - 1.2 mm 0.039 - 0.047 fluid tip

### Application:



Apply: Apply two full wet coats, allowing proper flash time\* between coats. Apply additional coats as necessary to achieve total dry film thickness and/or metallic control.

\*Flash times will vary dependent upon film thickness, temperature, solvent selection, spray gun set-up, application, etc.

Recommended Film Thickness:	Wet Film Thickness (WFT)	Per Coat	Total
		3 - 4 mils	6 - 8 mils
	Dry Film Thickness (DFT)	1 mils	2 mils

**Caution:** All 2-component crosslinking slows significantly at temperatures below 60°F or 16°C. Never spray or subject freshly painted coatings to these conditions or loss of gloss, decreased durability and improper curing can occur.

### Estimated Drying Times:



Air-Dry @ 50% Relative Humidity, 70°F/21°C  
 Satin MAP (mixed 3:1:1 with catalyst and reducer)

Accelerator*	Dust Free	Set to Touch	Dry to Handle	Tape Time	Vinyl Application (2-3 mils)	Reflective Metallic Vinyl Application
Without Accelerator	15 minutes	30 min-1 hour	1.5-2 hours	16 hours	48 hours	96 hours
287437SP/08	15 minutes	30-45 minutes	1-1.5 hours	1 hour	24 hours	48 hours
MAP-LVA117/08	15 minutes	30-45 minutes	1-1.5 hours	45 minutes	24 hours	48 hours
47117SP/04	15 minutes	30-45 minutes	45 min-1 hour	45 minutes	24 hours	48 hours
287484SP/08	15 minutes	30-45 minutes	45 min-1 hour	2 hours	8 hours	24 hours

\*Times listed in the chart above are for a full load of accelerator. Refer to MPC218 for optional accelerators and amounts.

**Recoating:** Paint films cured over 24 hours should be cleaned, lightly dry scuff sanded with 320 – 400g by hand/machine or wet sanded with 600g, then cleaned again before recoating.

**Force Dry:** Allow 30 minute purge before baking to prevent solvent popping. Bake for 40 minutes at 140°.

### Equipment Cleaning:

Clean equipment promptly with lacquer thinner or equivalent cleaning solvent.

**Note: Do not leave mixed material in equipment.**

# Satin MAP<sup>®</sup>

Matthews Acrylic Polyurethane

## Technical Data:

### VOC Information

VOC Actual RTS	4.46 - 5.50 lbs/gal
VOC Actual RTS	534 - 659 g/L
VOC Regulatory (less water less exempt) RTS	4.46 - 5.49 lbs/gal
VOC Regulatory (less water less exempt) RTS	534 - 658 g/L

For complete VOC information, visit [MatthewsPaint.com](http://MatthewsPaint.com) > Quick Links > VOC Data

### Performance Characteristics

Volume solids (RTS)	25% - 31%
Theoretical Coverage (1 mil @ 100% transfer efficiency)	500 sq.ft./RTS gal
Application Conditions - Temperature	60°F (16°C) Minimum 100°F (38°C) Maximum
Application Conditions - Relative Humidity	85% maximum 5° above dew point

For specifications and other technical data refer to MPC101 MAP specifications document

## Important:

The contents of this package may have to be blended with other components before the product can be used. Before opening the packages, be sure you understand the warning messages on the labels of all components, since the mixture will have the hazards of all its parts. Improper spray technique may result in a hazardous condition. Follow spray equipment manufacturer's instructions to prevent personal injury or fire. Follow directions for respirator use. Wear eye and skin protection. Observe all applicable precautions.

**See Safety Data Sheet and Labels for additional safety information and handling instructions.**

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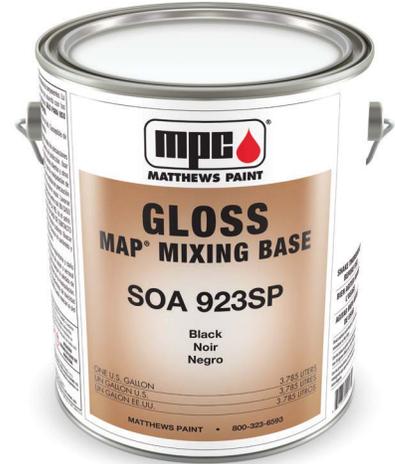


**Matthews Acrylic Polyurethane**

# Gloss MAP®

MAP® (Matthews Acrylic Polyurethane) is famous for its ability to withstand exposure to extreme climatic conditions. Once cured, MAP's highly durable, chemically cross-linked coating allows most graffiti to be removed with a suitable solvent and process. This product can be applied over many properly prepared and primed substrates such as aluminum, steel, wood, or other existing coatings.

MAP has an unlimited selection of standard and custom colors that can be adjusted to a wide range of gloss levels. Color offsets to any manufacturer are also available.



**Features:**

**Benefits:**

- Durable gloss finish .....Adds depth and appearance
- Air-dry or force-dry capable.....Fits most shop conditions
- Excellent UV resistance .....Excellent color and gloss retention; Extended life cycle; Reduced maintenance costs
- 2K Acrylic polyurethane .....Resistance to weathering; Resistance to chalking; Long-term durability
- Brush and roll capability .....For use in areas where air spraying is prohibited

**Compatible Surfaces:**

**MAP Acrylic Polyurethane may be applied over properly prepared:**

- |                                       |  |                                      |
|---------------------------------------|--|--------------------------------------|
| 6001SP/01 Polyester Primer Surfacer   | 274530SP/01 2.1 VOC White Epoxy Primer | 74780SP/01 HBEF                      |
| 6007SP/01 3.5 Gray Epoxy Primer       | 274531SP/01 2.1 VOC Black Epoxy Primer | 74777SP/01 Tie Bond                  |
| 274685SP/01 U Prime                   | 74350SP/01 3.5 Non-Chromate Primer     | 274777SP/01 Low VOC Tie Bond         |
| 274808SP/01 Black Epoxy Primer        | 74734SP/01 Metal Pretreatment          | 274793SP/01 Low VOC Spray Bond       |
| 274908SP/01 White Epoxy Primer        | 74760SP/01 PT Filler                   | LVU100/01 Ultra Low VOC Epoxy Primer |
| 274528SP/01 2.1 VOC Gray Epoxy Primer | 74770SP/01 HBPT                        |                                      |

**Associated Products:**

- |  |  |   |
|--|--|---|
| <b>Catalyst</b>  | <b>Reducer</b>   | <b>Accelerator</b>                      |
| 43270SP/01* Universal Catalyst   | 6379SP/01 Cool temperature, 60 - 75°F (16 - 24°C)                                    | 287437SP/08 HS Accelerator              |
| 43621SP/04 Brushing Catalyst<br>(For brush or roller application)                            | 45280SP/01 Warm temperature, 70 - 80°F (21 - 27°C)                                   | 47117SP/04 MAP Accelerator              |
| 43999SP/01 Slow Catalyst<br>(For hot weather, bake application or for very large substrates) | 45290SP/01 Very warm temperature, 75 - 85°F (24 - 29°C)                              | 287484SP/08 HS Turbo Enhancer           |
| *Also available in /04   | 6396SP/01 Hot temperature, 80°F (27°C) & above                                       | MAP-LVA117/08 Ultra Low VOC Accelerator |
|  | 45251SP/01 Retarder, to be blended up to 50% with reducer. Not to be used by itself. |   |

# Gloss MAP<sup>®</sup>

## Directions for Use

### Surface Preparation:

Substrate should be prepared according to Matthews Substrate Preparation Guide prior to topcoat application.

### Mix Ratio:



Mix Ratio for Spraying (by volume)

	43270SP/01 or /04		
MAP	43999SP/01	Reducer*	with Accelerator
3 parts	1 part	1 part	Optional**

\*Choose MAP reducer

- 6379SP/01 Cool temperature, 60 - 75°F (16 - 24°C)
- 45280SP/01 Warm temperature, 70 - 80°F (21 - 27°C)
- 45290SP/01 Very warm temperature, 75 - 85°F (24 - 29°C)
- 6396SP/01 Hot temperature, 80°F (27°C) & above
- 45251SP/01 Retarder, to be blended up to 50% with reducer. Not to be used by itself.
- NOTE: Larger jobs may require a hotter temperature reducer.

\*\*Refer to MPC218 for optional accelerators and amounts.

- For Brushing and Rolling, refer to Technical Data Sheet MPC159.
- All components should be mixed thoroughly before using
- Strain material after mixing



**Pot Life:** Pot-life is the amount of time before spray viscosity doubles. These are estimates based on lab results at 50% relative humidity, 70°F/21°C—results will vary based on application conditions, reducer selection, and accelerator choice.

Note: mix no more product than can be used within time limits listed below:

Application Method	Accelerator*	Max load of accelerator per RTS qt	Pot-Life
Spraying	Without Accelerator		8 hours
	287437SP/08	1.5 oz	2 hours
	MAP-LVA117/08	1 oz	45 min
	47117SP/04	1 oz	1 hour
	287484SP/08	.5 oz	1 hour
Brush and Roll	Accelerator is Not Recommended when brushing or rolling		8 hours

\*Times listed in the chart above are for a full load of accelerator. Refer to MPC218 for optional accelerators and amounts.

### Additives:



None required, but the following may be used for specific application or project needs:

- 47888SP/01 Flattening Paste (refer to MPC204)
- 287112SP/04 Medium Suede Additive
- 287113SP/04 Suede Additive
- 287103SP/01 Low VOC Basecoat Converter
- 47444SP/01 Brush/Roller Additive
- 47474SP/04 Flex Additive
- SOA955SP/01 Matting Clear (refer to MPC205)

# Gloss MAP<sup>®</sup>

## Directions for Use

### Spray Set Up:



Air Pressure: Conventional: 40 - 50 psi at the gun\*  
 HVLP: 10 psi at the cap\*  
 \* Refer to spray gun manufacturer recommendations for inlet pressure.



Pressure Pot Fluid Delivery: 8 - 12 Fluid Ounces per Minute



Gun Set Up: Siphon Feed: 1.2 - 1.4 mm 0.047 - 0.055 fluid tip  
 HVLP: 1.2 - 1.4 mm 0.047 - 0.055 fluid tip  
 Pressure Pot: 1.0 - 1.2 mm 0.039 - 0.047 fluid tip

### Application:



Apply: Apply two full wet coats, allowing proper flash time\* between coats. Apply additional coats as necessary to achieve total dry film thickness and/or metallic control.

\*Flash times will vary dependent upon film thickness, temperature, solvent selection, spray gun set-up, application, etc.

Recommended Film Thickness:	Wet Film Thickness (WFT)	Per Coat	Total
		3 - 4 mils	6 - 8 mils
	Dry Film Thickness (DFT)	1 mils	2 mils

**Caution:** All 2-component crosslinking slows significantly at temperatures below 60°F or 16°C. Never spray or subject freshly painted coatings to these conditions or loss of gloss, decreased durability and improper curing can occur.

### Estimated Drying Times:



Air-Dry @ 50% Relative Humidity, 70°F/21°C  
 MAP (mixed 3:1:1 with catalyst and reducer)

Accelerator*	Dust Free	Set to Touch	Dry to Handle	Tape Time	Vinyl Application (2-3 mils)	Reflective Metallic Vinyl Application
Without Accelerator	15 minutes	30 min-1 hour	1.5-2 hours	16 hours	48 hours	96 hours
287437SP/08	15 minutes	30-45 minutes	1-1.5 hours	1 hour	24 hours	48 hours
MAP-LVA117/08	15 minutes	30-45 minutes	1-1.5 hours	45 minutes	24 hours	48 hours
47117SP/04	15 minutes	30-45 minutes	45 min-1 hour	45 minutes	24 hours	48 hours
287484SP/08	15 minutes	30-45 minutes	45 min-1 hour	2 hours	8 hours	24 hours

\*Times listed in the chart above are for a full load of accelerator. Refer to MPC218 for optional accelerators and amounts.

**Recoating:** Paint films cured over 24 hours should be cleaned, lightly dry scuff sanded with 320 – 400g by hand/machine or wet sanded with 600g, then cleaned again before recoating.

**Force Dry:** Allow 30 minute purge before baking to prevent solvent popping. Bake for 40 minutes at 140°.

### Equipment Cleaning:

Clean equipment promptly with lacquer thinner or equivalent cleaning solvent.

**Note: Do not leave mixed material in equipment.**

# Gloss MAP<sup>®</sup>

Matthews Acrylic Polyurethane

## Technical Data:

### VOC Information

VOC Actual RTS	4.46 - 5.50 lbs/gal
VOC Actual RTS	534 - 659 g/L
VOC Regulatory (less water less exempt) RTS	4.46 - 5.49 lbs/gal
VOC Regulatory (less water less exempt) RTS	534 - 658 g/L

For complete VOC information, visit [MatthewsPaint.com](http://MatthewsPaint.com) > Quick Links > VOC Data

### Performance Characteristics

Volume solids (RTS)	25% - 31%
Theoretical Coverage (1 mil @ 100% transfer efficiency)	500 sq.ft./RTS gal
Application Conditions - Temperature	60°F (16°C) Minimum 100°F (38°C) Maximum
Application Conditions - Relative Humidity	85% maximum 5° above dew point

For specifications and other technical data refer to MPC101 MAP specifications document

**Important:** The contents of this package may have to be blended with other components before the product can be used. Before opening the packages, be sure you understand the warning messages on the labels of all components, since the mixture will have the hazards of all its parts. Improper spray technique may result in a hazardous condition. Follow spray equipment manufacturer's instructions to prevent personal injury or fire. Follow directions for respirator use. Wear eye and skin protection. Observe all applicable precautions.

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**Low VOC Satin Acrylic Polyurethane**

# Satin VOC MAP<sup>®</sup>

Satin VOC MAP provides an easy way to get 3.5 or 2.8 VOC compliance. Satin VOC MAP applies, handles, covers and dries with the same extraordinary uniform finish as our conventional MAP<sup>®</sup> but with a natural satin finish, right out of the can. No more hassles trying to flatten high gloss compliant finishes with a post-add flattening agent.



**Features:**

**Benefits:**

Satin-in-the-can .....	No additional flattening agent needed; Consistent gloss and finish; Less time to mix
Air-dry or force-dry capable.....	Fits most shop conditions
Excellent UV resistance .....	Excellent color and gloss retention; Extended life cycle; Reduced maintenance costs
2K Acrylic polyurethane .....	Resistance to weathering; Resistance to chalking; Long-term durability
Brush and roll capability .....	For use in areas where air spraying is prohibited
Low VOC technology .....	Environmentally friendly; Complies with VOC requirements

**Compatible Surfaces:**

**Satin VOC MAP Acrylic Polyurethane may be applied over properly prepared:**

6001SP/01 Polyester Primer Surfacer	274530SP/01 2.1 VOC White Epoxy Primer	74780SP/01 HBEF
6007SP/01 3.5 Gray Epoxy Primer	274531SP/01 2.1 VOC Black Epoxy Primer	74777SP/01 Tie Bond
274685SP/01 U Prime	74350SP/01 3.5 Non-Chromate Primer	274777SP/01 Low VOC Tie Bond
274808SP/01 Black Epoxy Primer	74734SP/01 Metal Pretreatment	274793SP/01 Low VOC Spray Bond
274908SP/01 White Epoxy Primer	74760SP/01 PT Filler	LVU100/01 Ultra Low VOC Epoxy Primer
274528SP/01 2.1 VOC Gray Epoxy Primer	74770SP/01 HBPT	

**Associated Products:**

**Catalyst**

283320SP/01\* Satin VOC Catalyst  
\*Also available in /04

**3.5 VOC Reducer**

6300SP/01 Cool temperature, 60 - 75°F (16 - 24°C)  
6301SP/01 Warm temperature, 70 - 85°F (21 - 29°C)  
6302SP/01 Hot temperature, 80°F (27°C) & above

**2.8 VOC Reducer**

6370SP/01 Cool temperature, 60 - 75°F (16 - 24°C)  
6371SP/01 Warm temperature, 70 - 85°F (21 - 29°C)  
6372SP/01 Hot temperature, 80°F (27°C) & above

**Accelerator**

287437SP/08 HS Accelerator  
47117SP/04 MAP Accelerator  
287484SP/08 HS Turbo Enhancer  
MAP-LVA117/08 Ultra Low VOC Accelerator

# Satin VOC MAP<sup>®</sup>

## Directions for Use

**Surface Preparation:** Substrate should be prepared according to Matthews Substrate Preparation Guide prior to topcoat application.

**Mix Ratio:**



Mix Ratio for Spraying (by volume)

Satin VOC MAP	283320SP/01 or /04	Reducer*	with Accelerator
3 parts	1 part	1 part	Optional**

\*Choose VOC MAP reducer

**3.5 VOC Reducer**

- 6300SP/01 Cool temperature, 60 - 75°F (16 - 24°C)
- 6301SP/01 Warm temperature, 70 - 85°F (21 - 29°C)
- 6302SP/01 Hot temperature, 80°F (27°C) & above

**2.8 VOC Reducer**

- 6370SP/01 Cool temperature, 60 - 75°F (16 - 24°C)
- 6371SP/01 Warm temperature, 70 - 85°F (21 - 29°C)
- 6372SP/01 Hot temperature, 80°F (27°C) & above
- NOTE: Larger jobs may require a hotter temperature reducer.

\*\*Refer to MPC218 for optional accelerators and amounts.

- For Brushing and Rolling, refer to Technical Data Sheet MPC159.
- All components should be mixed thoroughly before using
- Strain material after mixing



**Pot Life:** Pot-life is the amount of time before spray viscosity doubles. These are estimates based on lab results at 50% relative humidity, 70°F/21°C—results will vary based on application conditions, reducer selection, and accelerator choice.

Note: mix no more product than can be used within time limits listed below:

Application Method	Accelerator*	Max load of accelerator per RTS qt	Pot-Life
Spraying	Without Accelerator		8 hours
	287437SP/08	1.5 oz	2 hours
	MAP-LVA117/08	.5 oz	45 min
	47117SP/04	1 oz	1 hour
	287484SP/08	.5 oz	1 hour
Brush and Roll	Accelerator is Not Recommended when brushing or rolling		8 hours

\*Times listed in the chart above are for a full load of accelerator. Refer to MPC218 for optional accelerators and amounts.

**Additives:**



None required, but the following may be used for specific application or project needs:

- 287112SP/04 Medium Suede Additive
- 287113SP/04 Suede Additive
- 287103SP/01 Low VOC Basecoat Converter
- 47444SP/04 Brush/Roller Additive\*
- 287750SP/01 Exempt Flattening Paste
- 47474SP/04 Flex Additive\*

\*47444SP/04 Brush/Roller Additive and 47474SP/04 Flex Additive can be used in areas with 3.5 VOC regulations

# Satin VOC MAP<sup>®</sup>

## Directions for Use

### Spray Set Up:



Air Pressure: Conventional: 40 - 50 psi at the gun\*  
 HVLP: 10 psi at the cap\*  
 \* Refer to spray gun manufacturer recommendations for inlet pressure.



Pressure Pot Fluid Delivery: 8 - 12 Fluid Ounces per Minute



Gun Set Up: Siphon Feed: 1.2 - 1.4 mm 0.047 - 0.055 fluid tip  
 HVLP: 1.2 - 1.4 mm 0.047 - 0.055 fluid tip  
 Pressure Pot: 1.0 - 1.2 mm 0.039 - 0.047 fluid tip

### Application:



Apply: Apply two full wet coats, allowing proper flash time\* between coats. Apply additional coats as necessary to achieve total dry film thickness and/or metallic control.

\*Flash times will vary dependent upon film thickness, temperature, solvent selection, spray gun set-up, application, etc.

Recommended Film Thickness:	Wet Film Thickness (WFT)	Per Coat	Total
		3 - 4 mils	6 - 8 mils
	Dry Film Thickness (DFT)	1 mils	2 mils

**Caution:** All 2-component crosslinking slows significantly at temperatures below 60°F or 16°C. Never spray or subject freshly painted coatings to these conditions or loss of gloss, decreased durability and improper curing can occur.

### Estimated Drying Times:



Air-Dry @ 50% Relative Humidity, 70°F/21°C  
 Satin VOC MAP (mixed 3:1:1 with catalyst and reducer)

Accelerator*	Dust Free	Set to Touch	Dry to Handle	Tape Time	Vinyl Application (2-3 mils)	Reflective Metallic Vinyl Application
Without Accelerator	15 minutes	30 min-1 hour	1.5-2 hours	16 hours	48 hours	96 hours
287437SP/08	15 minutes	30-45 minutes	1-1.5 hours	1 hour	24 hours	48 hours
MAP-LVA117/08	15 minutes	30-45 minutes	1-1.5 hours	45 minutes	24 hours	48 hours
47117SP/04	15 minutes	30-45 minutes	45 min-1 hour	45 minutes	24 hours	48 hours
287484SP/08	15 minutes	30-45 minutes	45 min-1 hour	2 hours	8 hours	24 hours

\*Times listed in the chart above are for a full load of accelerator. Refer to MPC218 for optional accelerators and amounts.

**Recoating:** Paint films cured over 24 hours should be cleaned, lightly dry scuff sanded with 320 – 400g by hand/machine or wet sanded with 600g, then cleaned again before recoating.

**Force Dry:** Allow 30 minute purge before baking to prevent solvent popping. Bake for 40 minutes at 140°.

### Equipment Cleaning:

Clean equipment promptly with lacquer thinner or equivalent cleaning solvent.

**Note: Do not leave mixed material in equipment.**

# Satin VOC MAP<sup>®</sup> **Low VOC Satin Acrylic Polyurethane**

## Technical Data:

### 3.5 VOC Information

VOC Actual RTS	1.73 - 3.12 lbs/gal
VOC Actual RTS	207 - 373 g/L
VOC Regulatory (less water less exempt) RTS	2.95 - 3.52 lbs/gal
VOC Regulatory (less water less exempt) RTS	353 - 421 g/L

**Important:** to maintain 3.5 VOC compliance when using accelerators, use no more than .5oz per RTS qt of the following accelerators: 287 437SP, MAP-LVA117, 47117SP, or 287484SP.

### 2.8 VOC Information

VOC Actual RTS	1.09 - 1.28 lbs/gal
VOC Actual RTS	130 - 153 g/L
VOC Regulatory (less water less exempt) RTS	2.24 - 2.8 lbs/gal
VOC Regulatory (less water less exempt) RTS	268 - 331 g/L

**Important:** to maintain 2.8 VOC compliance, use only MAP-LVA117 accelerator.

For complete VOC information, visit [MatthewsPaint.com](http://MatthewsPaint.com) > Quick Links > VOC Data

### Performance Characteristics

Volume solids (RTS)	29% - 33%
Theoretical Coverage (1 mil @ 100% transfer efficiency)	470 - 542 sq.ft./RTS gal
Application Conditions - Temperature	60°F (16°C) Minimum 100°F (38°C) Maximum
Application Conditions - Relative Humidity	85% maximum 5° above dew point

For specifications and other technical data refer to MPC229 Satin VOC MAP specifications document

**Important:** The contents of this package may have to be blended with other components before the product can be used. Before opening the packages, be sure you understand the warning messages on the labels of all components, since the mixture will have the hazards of all its parts. Improper spray technique may result in a hazardous condition. Follow spray equipment manufacturer's instructions to prevent personal injury or fire. Follow directions for respirator use. Wear eye and skin protection. Observe all applicable precautions.

**See Safety Data Sheet and Labels for additional safety information and handling instructions.**

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**Acrylic Polyurethane Ultra Low VOC**

# MAP-LVS

MAP-LV (Matthews Acrylic Polyurethane Ultra Low VOC) is designed to exceed the most stringent VOC regulations while retaining our full color range. In addition, this flexible high-solids, chemically cross-linked coating offers exceptional outdoor durability, UV and chemical resistance, and great impact, mar and abrasion resistance. This product can be applied over many properly prepared and primed substrates such as aluminum, steel, wood, or other existing coatings. MAP-LV is formulated to deliver less than 50g/L VOC in standard solid color applications. The use of metallics and/or special reducers will increase the VOC level slightly.



**Features:**

**Benefits:**

- |                                    |  |
|------------------------------------|--|
| Durable yet flexible film .....    | Impact and mar resistant   |
| Satin-in-the-can.....              | No additional flattening agent needed, Consistent gloss and finish, Less time to mix |
| Air-dry or force-dry capable ..... | Fits most shop conditions  |
| Excellent UV resistance .....      | Excellent color and gloss retention; Extended life cycle; Reduced maintenance costs  |
| 2K Acrylic polyurethane.....       | Resistance to weathering; Resistance to chalking, Long-term durability               |
| Ultra low VOC technology .....     | Environmentally friendly; Complies with most stringent VOC requirements; High solids |
| Brush and roll capability.....     | For use in areas where air spraying is prohibited                                    |

**Compatible Surfaces:**

**MAP-LVS Acrylic Polyurethane Ultra Low VOC may be applied over properly prepared:**

6001SP/01 Polyester Primer Surfacer	274530SP/01 2.1 VOC White Epoxy Primer	74780SP/01 HBEF
6007SP/01 3.5 Gray Epoxy Primer	274531SP/01 2.1 VOC Black Epoxy Primer	74777SP/01 Tie Bond
274685SP/01 U Prime	74350SP/01 3.5 Non-Chromate Primer	274777SP/01 Low VOC Tie Bond
274808SP/01 Black Epoxy Primer	74734SP/01 Metal Pretreatment	274793SP/01 Low VOC Spray Bond
274908SP/01 White Epoxy Primer	74760SP/01 PT Filler	LVU100/01 Ultra Low VOC Epoxy Primer
274528SP/01 2.1 VOC Gray Epoxy Primer	74770SP/01 HBPT	

**Associated Products:**

Catalyst	Reducer	Accelerator
MAP-LVX270/01* Catalyst	MAP-LVRS01/01* Cool Temp. Spray Reducer	287437SP/08 HS Accelerator
	MAP-LVRS02/01 Warm Temp. Spray Reducer w/ Extender	MAP-LVA117/08 Ultra Low VOC Accelerator
*Also available in /04	MAP-LVRS03/01 Hot Temperature Spray Reducer w/ Extender 80° & Above	47117SP/04 MAP Accelerator
	MAP-LVRB51/01* Brush and Roll Reducer	287484SP/08 HS Turbo Enhancer
		SM166A/04 Tape-It Accelerator

# MAP-LVS

## Directions for Use

**Surface Preparation:** Substrate should be prepared according to Matthews Substrate Preparation Guide prior to topcoat application.

**Mix Ratio:**



Mix Ratio for Spraying (by volume)

MAP-LVS	LVX270/01 or /04	LVRS0x*	with Accelerator**
3 parts	1 part	1 part	Up to 1oz/RTS quart

\*Choose MAP reducer

- MAP-LVRS01 Cool Temp. Spray Reducer
- MAP-LVRS02 Warm Temp. Spray Reducer with Extender
- MAP-LVRS03 Hot Temperature Spray Reducer with Extender 80° & Above
- NOTE: Larger jobs may require a hotter temperature reducer.

\*\*Caution: use of accelerator with LVRS01 is Not Recommended as it will drastically shorten pot life.

- For Brushing and Rolling, refer to Technical Data Sheet MPC193.
- All components should be mixed thoroughly before using
- Strain material after mixing



**Pot Life:** Pot-life is the amount of time before spray viscosity doubles. These are estimates based on lab results at 50% relative humidity, 70°F/21°C—results will vary based on application conditions, reducer selection, and accelerator choice.

Note: mix no more product than can be used within time limits listed below:

Application Method	Reducer	Accelerator*	Max load of accelerator per RTS qt	Pot-Life
Spraying	MAP-LVRS01/01**	Accelerator is Not Recommended when using MAP-LVRS01/01** reducer		4 hours
	MAP-LVRS02/01 or MAP-LVRS03/01	287437SP/08	1.5 oz	1.5 hours
		MAP-LVA117/08	1 oz	1 hour
		47117SP/04	1 oz	1 hour
		287484SP/08	½ oz – 1 oz	1 hour
	SM166A/04	¼ oz – 1 oz	30 minutes	
Brush and Roll	LVRB51/01**	Accelerator is Not Recommended when brushing or rolling		2 hours

\*Times listed in the chart above are for a full load of accelerator.

\*\*Also available in /04

**Additives:**



None required, but the following may be used for specific application or project needs:

- 287112SP/04 Medium Suede Additive
- 287113SP/04 Coarse Suede Additive

**Spray Set Up:**



Air Pressure: Conventional: 40 - 50 psi at the gun\*  
HVLP: 10 psi at the cap\*

\* Refer to spray gun manufacturer recommendations for inlet pressure.



Pressure Pot Fluid Delivery: 8 - 12 Fluid Ounces per Minute



Gun Set Up: Siphon Feed: 1.2 - 1.4 mm 0.047 - 0.055 fluid tip  
HVLP: 1.2 - 1.4 mm 0.047 - 0.055 fluid tip  
Pressure Pot: 1.0 - 1.2 mm 0.039 - 0.047 fluid tip

# MAP-LVS

## Directions for Use

### Application:



Apply:

Apply two full wet coats, allowing proper flash time\* between coats. Apply additional coats as necessary to achieve total dry film thickness and/or metallic control.

\*Flash times will vary dependent upon film thickness, temperature, solvent selection, spray gun set-up, application, etc.

Recommended  
Film Thickness:

	Per Coat	Total
Wet Film Thickness (WFT)	2 - 3 mils	4 - 6 mils
Dry Film Thickness (DFT)	1 mils	2 mils

**Caution:** All 2-component crosslinking slows significantly at temperatures below 60°F or 16°C. Never spray or subject freshly painted coatings to these conditions or loss of gloss, decreased durability and improper curing can occur.

### Estimated Drying Times:



Air-Dry @ 50% Relative Humidity, 70°F/21°C  
LVS (Mixed 3:1:1 with LVX270 and Reducer)

Reducer	Accelerator*	Dust Free	Set to Touch	Dry to Handle	Tape Time	Vinyl Application (2-3 mils)	Reflective Metallic Vinyl Application
MAP-LVRS01/01**	Not recommended	10-15 minutes	25-35 minutes	45-60 minutes	1-2 hours	8-11 hours	16-22 hours
MAP-LVRS02/01 or MAP-LVRS03/01	287437SP/08	10-15 minutes	15-20 minutes	25-45 minutes	1-1½ hours	7-10 hours	12-16 hours
	MAP-LVA117/08	10-15 minutes	15-20 minutes	25-45 minutes	1-1½ hours	7-10 hours	12-16 hours
	47117SP/04	10-15 minutes	15-20 minutes	25-45 minutes	1-1½ hours	7-10 hours	12-16 hours
	287484SP/08	10-15 minutes	15-20 minutes	25-40 minutes	45-60 minutes	5-7 hours	9-14 hours
	SM166A/04	10-15 minutes	15-20 minutes	25-35 minutes	45-60 minutes	4-7 hours	8-14 hours

\*Times listed in the chart above are for a full load of accelerator.

\*\*Also available in /04

**Recoating:** Paint films cured over 24 hours should be cleaned, lightly dry scuff sanded with 320 – 400g by hand/machine or wet sanded with 600g, then cleaned again before recoating.

**Force Dry:** Allow 30 minute purge before baking to prevent solvent popping. Bake for 40 minutes at 140°.

### Equipment Cleaning:

Clean equipment promptly with any low VOC all-purpose cleaning solvent. Acetone should be used for cleanup in environmentally regulated areas.

**Note: Do not leave mixed material in equipment.**

# MAP-LVS

Acrylic Polyurethane Ultra Low VOC

## Technical Data:

### VOC Information

VOC Actual RTS	0.18 – 1.91 lbs/gal
VOC Actual RTS	22 – 229 g/L
VOC Regulatory (less water less exempt) RTS	0.38 – 2.34 lbs/gal
VOC Regulatory (less water less exempt) RTS	46 – 280 g/L

For complete VOC information, visit [MatthewsPaint.com](http://MatthewsPaint.com) > Quick Links > VOC Data

### Performance Characteristics

Volume solids (RTS)	45.28% - 54.88%
Theoretical Coverage (1 mil @ 100% transfer efficiency)	727 - 761 sq.ft./RTS gal
Application Conditions - Temperature	60°F (16°C) Minimum 100°F (38°C) Maximum
Application Conditions - Relative Humidity	85% maximum 5° above dew point

For specifications and other technical data refer to MPC211 MAP-LV specifications document

## Important:

The contents of this package may have to be blended with other components before the product can be used. Before opening the packages, be sure you understand the warning messages on the labels of all components, since the mixture will have the hazards of all its parts. Improper spray technique may result in a hazardous condition. Follow spray equipment manufacturer's instructions to prevent personal injury or fire. Follow directions for respirator use. Wear eye and skin protection. Observe all applicable precautions.

**See Safety Data Sheet and Labels for additional safety information and handling instructions.**

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**Acrylic Polyurethane Ultra Low VOC**

# MAP-LVG

MAP-LV (Matthews Acrylic Polyurethane Ultra Low VOC) is designed to exceed the most stringent VOC regulations while retaining our full color range. In addition, this flexible high-solids, chemically cross-linked coating offers exceptional outdoor durability, UV and chemical resistance, and great impact, mar and abrasion resistance. This product can be applied over many properly prepared and primed substrates such as aluminum, steel, wood, or other existing coatings. MAP-LV is formulated to deliver less than 50g/L VOC in standard solid color applications. The use of metallics and/or special reducers will increase the VOC level slightly.



**Features:**

**Benefits:**

Durable yet flexible film .....	Impact and mar resistant
Durable gloss finish .....	Adds depth and appearance
Air-dry or force-dry capable .....	Fits most shop conditions
Excellent UV resistance .....	Excellent color and gloss retention; Extended life cycle; Reduced maintenance costs
2K Acrylic polyurethane .....	Resistance to weathering; Resistance to chalking, Long-term durability
Ultra low VOC technology .....	Environmentally friendly; Complies with most stringent VOC requirements; High solids
Brush and roll capability .....	For use in areas where air spraying is prohibited

**Compatible Surfaces:**

**MAP-LVG Acrylic Polyurethane Ultra Low VOC may be applied over properly prepared:**

- |                                       |  |                                      |
|---------------------------------------|--|--------------------------------------|
| 6001SP/01 Polyester Primer Surfacer   | 274530SP/01 2.1 VOC White Epoxy Primer | 74780SP/01 HBEF                      |
| 6007SP/01 3.5 Gray Epoxy Primer       | 274531SP/01 2.1 VOC Black Epoxy Primer | 74777SP/01 Tie Bond                  |
| 274685SP/01 U Prime                   | 74350SP/01 3.5 Non-Chromate Primer     | 274777SP/01 Low VOC Tie Bond         |
| 274808SP/01 Black Epoxy Primer        | 74734SP/01 Metal Pretreatment          | 274793SP/01 Low VOC Spray Bond       |
| 274908SP/01 White Epoxy Primer        | 74760SP/01 PT Filler                   | LVU100/01 Ultra Low VOC Epoxy Primer |
| 274528SP/01 2.1 VOC Gray Epoxy Primer | 74770SP/01 HBPT                        |                                      |

**Associated Products:**

- | Catalyst                | Reducer   | Accelerator                             |
|-------------------------|---|---|
| MAP-LVX270/01* Catalyst | MAP-LVRS01/01* Cool Temp. Spray Reducer                             | 287437SP/08 HS Accelerator              |
|                         | MAP-LVRS02/01 Warm Temp. Spray Reducer w/ Extender                  | MAP-LVA117/08 Ultra Low VOC Accelerator |
| *Also available in /04  | MAP-LVRS03/01 Hot Temperature Spray Reducer w/ Extender 80° & Above | 47117SP/04 MAP Accelerator              |
|                         | MAP-LVRB51/01* Brush and Roll Reducer                               |   |

# MAP-LVG

## Directions for Use

### Surface Preparation:

Substrate should be prepared according to Matthews Substrate Preparation Guide prior to topcoat application.

### Mix Ratio:



Mix Ratio for Spraying (by volume)

MAP-LVG	LVX270/01 or /04	LVRS0x*	with Accelerator**
3 parts	1 part	1 part	Up to 1oz/RTS quart

\*Choose MAP reducer

- MAP-LVRS01/01 or /04 Cool Temp. Spray Reducer
- MAP-LVRS02/01 Warm Temp. Spray Reducer with Extender
- MAP-LVRS03/01 Hot Temperature Spray Reducer with Extender 80° & Above
- NOTE: Larger jobs may require a hotter temperature reducer.

\*\*Caution: use of accelerator with LVRS01 is Not Recommended as it will drastically shorten pot life.

- For Brushing and Rolling, refer to Technical Data Sheet MPC193.
- All components should be mixed thoroughly before using
- Strain material after mixing



**Pot Life:** Pot-life is the amount of time before spray viscosity doubles. These are estimates based on lab results at 50% relative humidity, 70°F/21°C—results will vary based on application conditions, reducer selection, and accelerator choice.

Note: mix no more product than can be used within time limits listed below:

Application Method	Reducer	Accelerator*	Max load of accelerator per RTS qt	Pot-Life
Spraying	MAP-LVRS01/01**	Accelerator is Not Recommended when using MAP-LVRS01/01** reducer		1 hour
	MAP-LVRS02/01 or MAP-LVRS03/01	287437SP/08	1/2 oz	1.5 hours
		MAP-LVA117/08	1/2 oz	1 hour
		47117SP/04	1/2 oz	1 hour
Brush and Roll	LVRB51/01**	Accelerator is Not Recommended when brushing or rolling		1 hour

\*Times listed in the chart above are for a full load of accelerator.

\*\*Also available in /04

### Additives:



None required, but the following may be used for specific application or project needs:

- 287112SP/04 Medium Suede Additive
- 287113SP/04 Coarse Suede Additive

### Spray Set Up:



Air Pressure: Conventional: 40 - 50 psi at the gun\*  
HVLV: 10 psi at the cap\*

\* Refer to spray gun manufacturer recommendations for inlet pressure.



Pressure Pot Fluid Delivery: 8 - 12 Fluid Ounces per Minute



Gun Set Up: Siphon Feed: 1.2 - 1.4 mm 0.047 - 0.055 fluid tip  
HVLV: 1.2 - 1.4 mm 0.047 - 0.055 fluid tip  
Pressure Pot: 1.0 - 1.2 mm 0.039 - 0.047 fluid tip

# MAP-LVG

## Directions for Use

### Application:



Apply:

Apply two full wet coats, allowing proper flash time\* between coats. Apply additional coats as necessary to achieve total dry film thickness and/or metallic control.

\*Flash times will vary dependent upon film thickness, temperature, solvent selection, spray gun set-up, application, etc.

Recommended Film Thickness:	Wet Film Thickness (WFT)	Per Coat	Total
	2 - 3 mils	2 - 3 mils	4 - 6 mils
	Dry Film Thickness (DFT)	1 mils	2 mils

**Caution:** All 2-component crosslinking slows significantly at temperatures below 60°F or 16°C. Never spray or subject freshly painted coatings to these conditions or loss of gloss, decreased durability and improper curing can occur.

### Estimated Drying Times:



Air-Dry @ 50% Relative Humidity, 70°F/21°C  
LVG (Mixed 3:1:1 with LVX270 and Reducer)

Reducer	Accelerator*	Dust Free	Set to Touch	Dry to Handle	Tape Time	Vinyl Application (2-3 mils)	Reflective Metallic Vinyl Application
MAP-LVRS01/01**	Not recommended	10-15 minutes	25-35 minutes	45-60 minutes	1-2 hours	8-11 hours	16-22 hours
MAP-LVRS02/01 or MAP-LVRS03/01	287 437SP/08	10-15 minutes	15-20 minutes	25-40 minutes	1-1½ hours	7-10 hours	12-16 hours
	MAP-LVA117/08	10-15 minutes	15-20 minutes	25-40 minutes	1-1½ hours	7-10 hours	12-16 hours
	47117SP/04	10-15 minutes	15-20 minutes	25-40 minutes	1-1½ hours	7-10 hours	12-16 hours

\*Times listed in the chart above are for a full load of accelerator.

\*\*Also available in /04

**Recoating:** Paint films cured over 24 hours should be cleaned, lightly dry scuff sanded with 320 – 400g by hand/machine or wet sanded with 600g, then cleaned again before recoating.

**Force Dry:** Allow 30 minute purge before baking to prevent solvent popping. Bake for 40 minutes at 140°.

### Equipment Cleaning:

Clean equipment promptly with any low VOC all-purpose cleaning solvent. Acetone should be used for cleanup in environmentally regulated areas.

**Note: Do not leave mixed material in equipment.**

### Technical Data:

#### VOC Information

VOC Actual RTS	0.18 – 1.85 lbs/gal
VOC Actual RTS	22 – 221 g/L
VOC Regulatory (less water less exempt) RTS	0.36 – 2.30 lbs/gal
VOC Regulatory (less water less exempt) RTS	43 – 276 g/L

For complete VOC information, visit [MatthewsPaint.com](http://MatthewsPaint.com) > Quick Links > VOC Data

#### Performance Characteristics

Volume solids (RTS)	45.28% - 54.88%
Theoretical Coverage (1 mil @ 100% transfer efficiency)	727 - 761 sq.ft./RTS gal
Application Conditions - Temperature	60°F (16°C) Minimum 100°F (38°C) Maximum
Application Conditions - Relative Humidity	85% maximum 5° above dew point

For specifications and other technical data refer to MPC211 MAP-LV specifications document

# MAP-LVG

Acrylic Polyurethane Ultra Low VOC

**Important:** The contents of this package may have to be blended with other components before the product can be used. Before opening the packages, be sure you understand the warning messages on the labels of all components, since the mixture will have the hazards of all its parts. Improper spray technique may result in a hazardous condition. Follow spray equipment manufacturer's instructions to prevent personal injury or fire. Follow directions for respirator use. Wear eye and skin protection. Observe all applicable precautions.

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## 2-Part Acrylic Polyurethane Aerosol

AER2K10/EZ (No Paint)

AER2K15/EZ (Paint Included)

This aerosol is a simple professional dispensing system for touch-up on large projects or perfect for that small job to prevent mixing and clean-up.

### Features

- Custom mix any NS, SOA or SVOC color or clear
- Durable two-part acrylic polyurethane system
- Repair projects in the field when damaged in transit
- Covers 8-12 sq ft @ 2 mil per can
- 6 H compliant

### Benefits

- Mix product for sign & fill the aerosol with the exact same color for installation touch-ups
- Easy – no mixing toners at installation site for touch-ups
- Extends paint pot-life 4 times
- Easy application – professional



### Compatible Surfaces

Please note all surfaces must be properly prepared.

- Steel
- Aluminum
- Masonry
- Fiberglass
- Expanded PVC
- Brass, Bronze & Copper
- Photopolymer
- Acrylic
- Previously painted surfaces with proper prep – This, Gel coated Fiberglass, and Acrylic would be the only substrate we could apply direct with EZ Spray

### Required Equipment

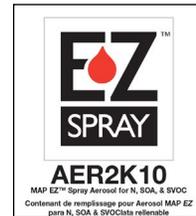
The filling machine requires connection to an air compressor with an operating pressure of 110 PSI. If this level is not consistently maintained then the filling operation will either take longer than normal time or may not be possible at all. DO NOT ATTEMPT to fill cans with less than 90 PSI. NEVER fill over 115 PSI.

### Dispensing Paint:

NEVER pour paint directly into the metal cylinder cup without the plastic filling cup! Doing so will result in having to return the machine to be professionally cleaned.

### Filling Instructions:

1. Use Personal Protective Equipment as required in the AER2K10/EZ & AER2K15/EZ SDS including safety glasses and solvent resistant gloves
2. Mix paint from a Matthews NS, SOA or SVOC color formulation. Other Matthews products cannot be used with AER2K10/EZ. Never put hardner or reducer in the paint.
3. Place the filling disc on the press-in stamp on the inside of the filling machine.
4. Track the filling disc edge and press down firmly ensuring the disc is firmly in place.
5. Remove the top cap from the aerosol can
6. Facing the spray nozzle away from you, remove the spray nozzle.
7. Insert the metal cylinder cup on cans filling head
8. Insert the plastic filling cup inside the metal cylinder cup.
9. Using appropriate PPE, fill the plastic filling cup to the filling line with the mixed color.
10. Insert aerosol can with filled metal cylinder cup into machine.
11. Rotate the turntable of the device counter-clockwise to securely seat the can in place for filling.
12. Close the door to the right in order to initiate the filling process (about 3-6 seconds).
13. Open the door.
14. Lower the turntable clockwise, remove the aerosol and metal cylinder cup carefully.
15. Take off the metal cylinder cup.
16. On a flat non-skid surface, firmly press metal cylinder cup downward.  
This will pop the plastic filling cup loose from the metal cylinder cup.
17. Remove the plastic filling cup from the metal cylinder cup and notice the color visible in the top. Set metal cylinder cup aside.
18. Facing the nozzle away from you, replace the spray nozzle on the spray head.
19. Snap the adapter ring on the top of the filled can.
20. Place the plastic filing cup with the color on the top of the can.
21. Place the cap with the red plunger on the bottom of the can.
22. Pull the black and white AER2K10/EZ label off, revealing the AER2K15/EZ color label.
23. Apply label with the color information, date filled and where it was filled.  
(The can will be good for 1 year from date of fill.)



**AER2K10/EZ**  
label on top



**AER2K15/EZ**  
label underneath

### Directions for Activation and Use:

1. Use Personal Protective Equipment as required in the AER2K15/EZ SDS including safety glasses, 1/2 of full mask respirator and solvent resistant gloves.
2. Remove the red plunger from the bottom cap, keeping the plastic filling cup in place.
3. Attach the red plunger to drive pin on bottom of can.
4. Holding the can with both hands place the red plunger on a solid, non-skid surface. With both hands, push down swiftly.
5. Shake the can to mix the contents rolling it a quarter turn every 15 seconds – mix thoroughly for 1 minute.
6. Remove the plastic filling cup with color indicator.
7. Pointing the spray nozzle away from you – purge can until a smooth spray pattern is achieved.  
Test the spray pattern to ensure there is a good consistent flow.

## Directions For Use

### Surface Preparation:

Substrate should be prepared according to the undercoat instructions prior to topcoat application. See the separate Repair Procedure on the website if you are attempting to fix a damaged substrate.

### Application:

- Apply 1 full wet coat
- Approximately 5 minutes flash off time between coats
- Follow with a 2nd full wet coat
- May require the application of a 3rd full wet coat depending on color depth and to obtain proper film build and gloss appearance



### Dry Time:

#### SVOC

- Air Dry: 50% relative humidity, 70°F / 21°C
- Dust Free: 20 minutes
- Tack Free: 30 minutes
- Tape Time: 16 hours
- Dry to Handle: 3 hours
- Dry to Clearcoat: 10 minutes up to 24 hours

#### SOA

- Air Dry: 50% relative humidity
- Dust Free: (dust won't stick) 15 minutes
- Tack Free: 2 hours
- Tape Time: 16 hours
- Dry to Handle: 24 hours
- Dry to Clearcoat: 30 minutes

#### NS

- Air Dry: 50% relative humidity
- Dust Free: 15 minutes
- Tack Free: 2 hours
- Tape Time: 16 hours
- Dry to Handle: 24 hours
- Dry to Clearcoat: 30 minutes

### Pot Life:

4 times the pot life of product filled in can, check the specific technical data sheet for the products baseline pot life.

### Finish:

- When material in can is spent, turn can upside down, direct away from any surfaces and depress the nozzle until all propellant is exhausted.
- Shelf Life: 24 months / 70 degrees not filled – filled 12 months from date of fill

### Total Film Build:

Dry film thickness 1.5-2 mils

### Technical Data:

#### RTS Combinations

#### AER2K15/EZ

Volume Ratio .....	As is (aerosol w/ Conventional MAP color)
Applicable Use Category .....	Exact Match Finish-Industrial - EFI
VOC Content (g/L).....	572-575
VOC Content (lbs./US Gal.).....	4.77-4.80
VOC Less Water Less Exempts (g/L).....	609-660
VOC Less Water Less Exempts (lbs./US Gal.).....	5.08-5.51

**Technical Data (Continued):**

<b>RTS Combinations</b>	<b>AER2K15/EZ</b>
Solids by weight (RTS) .....	16.9-24.7%
Solids by volume (RTS).....	11.2-13.4%
Sq. Ft. Coverage / can.....	8-12 sq ft @ 2 mil per can
MEK Resistance (100 double rubs) .....	No effect @ 1 Day Air Dry
Impact Resistance .....	Forward @ 2 Weeks Air Dry: 150+ in/lbs Reverse @ 2 Weeks Air Dry: 150+ in/lbs
1000 Hours Salt Fog.....	Scribe Creep Rating: 9 Face Blister Rating: 9 Adhesion Rating: 5A
500 Hours Humidity Resistance .....	Blisters: None 60 Deg Gloss Retention: 99%
QUV "B" (1500 Hours Exposure).....	60 Deg Gloss Retention: 92% Color Shift: 1.0 Delta E (CIELab)
Chemical Resistance.....	10% NaOH: No Effect 10% HCl: No Effect 10% H2SO4: No Effect Gasoline: Slight Effect
Application Conditions .....	60° F (16° C) minimum 100° F (38° C) maximum

**Can Disposal:**

Place empty can or cans that are no longer to be used into properly labeled metal container. As long as they are depressurized, they should be managed as empty paint cans are handled, if necessary as a hazardous waste pursuant to local, state and federal regulations. Any questions should be forwarded to the local waste authority.

**Precautions:**

Caution! Close container after each use. Do not take internally. Keep out of reach of children.

**Important:**

The contents of this package may require accessing other components before the product can be used. Before opening the packages, be sure you understand the warning messages on the labels of all components. Provide adequate ventilation for health and fire hazard control. Improper spray technique may result in a hazardous condition, personal injury or fire. Follow SDS directions for PPE including appropriate respirator, eye and skin protection. Observe all applicable precautions.

**See Safety Data Sheet and Labels for additional safety information and handling instructions.**

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If you require technical assistance, please call us toll-free 800-323-6593.

For professional use only

*This product is not intended for use within the state of California under CARB's Regulation for Reducing Volatile Organic Compound Emissions from Aerosol Coating Products.*



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www.matthewspaint.com • 760 Pittsburgh Drive • Delaware, OH 43015

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## 2-Part Acrylic Polyurethane Aerosol

MAP-LV2K10/EZ (No Paint)

MAP-LV2K15/EZ (Paint Included)

This aerosol is a simple professional dispensing system for touch-up on large projects or perfect for that small job to prevent mixing and clean-up.

### Features

- Custom mix any MAP-LVS or MAP-LVG color or MAP-LV clears
- Durable two-part acrylic polyurethane system
- Repair projects in the field when damaged in transit
- Covers 8-12 sq ft @ 2 mil per can
- 6 H compliant

### Benefits

- Mix product for sign & fill the aerosol with the exact same color for installation touch-ups
- Easy – no mixing toners at installation site for touch-ups
- Extends paint pot-life 4 times
- Easy application – professional



### Compatible Surfaces

Please note all surfaces must be properly prepared.

- Steel
- Aluminum
- Masonry
- Fiberglass
- Expanded PVC
- Brass, Bronze & Copper
- Photopolymer
- Acrylic
- Previously painted surfaces with proper prep – This, Gel coated Fiberglass, and Acrylic would be the only substrate we could apply direct with EZ Spray

### Required Equipment

The filling machine requires connection to an air compressor with an operating pressure of 110 PSI. If this level is not consistently maintained then the filling operation will either take longer than normal time or may not be possible at all. DO NOT ATTEMPT to fill cans with less than 90 PSI. NEVER fill over 115 PSI.

### Dispensing Paint:

NEVER pour paint directly into the metal cylinder cup without the plastic filling cup! Doing so will result in having to return the machine to be professionally cleaned.

### Filling Instructions:

1. Use Personal Protective Equipment as required in the MAP-LV2K10/EZ & MAP-LV2K15/EZ SDS including safety glasses and solvent resistant gloves.
2. Mix paint from a Matthews MAP-LVS or LVG color formulation. Other Matthews products cannot be used with MAP-LV2K10/EZ.
3. Place the filling disc on the press-in stamp on the inside of the filling machine.
4. Track the filling disc edge and press down firmly ensuring the disc is firmly in place.
5. Remove the top cap from the aerosol can
6. Facing the spray nozzle away from you, remove the spray nozzle.
7. Insert the metal cylinder cup on cans filling head
8. Insert the plastic filling cup inside the metal cylinder cup.
9. Using appropriate PPE, fill the plastic filling cup to the filling line with the mixed color.
10. Insert aerosol can with filled metal cylinder cup into machine.
11. Rotate the turntable of the device counter-clockwise to securely seat the can in place for filling.
12. Close the door to the right in order to initiate the filling process (about 3-6 seconds).
13. Open the door.
14. Lower the turntable clockwise, remove the aerosol and metal cylinder cup carefully.
15. Take off the metal cylinder cup.
16. On a flat non-skid surface, firmly press metal cylinder cup downward.  
This will pop the plastic filling cup loose from the metal cylinder cup.
17. Remove the plastic filling cup from the metal cylinder cup and notice the color visible in the top. Set metal cylinder cup aside.
18. Facing the nozzle away from you, replace the spray nozzle on the spray head.
19. Snap the adapter ring on the top of the filled can.
20. Place the plastic filling cup with the color on the top of the can.
21. Place the cap with the red plunger on the bottom of the can.
22. Pull the black and white MAP-LV2K10/EZ label off, revealing the MAP-LV2K15/EZ color label.
23. Apply label with the color information, date filled and where it was filled.  
(The can will be good for 1 year from date of fill.)



MAP-LV2K10/EZ  
label on top



MAP-LV2K15/EZ  
label underneath

### Directions for Activation and Use:

1. Use Personal Protective Equipment as required in the MAP-LV2K15/EZ SDS including safety glasses, 1/2 of full mask respirator and solvent resistant gloves.
2. Remove the red plunger from the bottom cap, keeping the plastic filling cup in place.
3. Attach the red plunger to drive pin on bottom of can.
4. Holding the can with both hands place the red plunger on a solid, non-skid surface. With both hands, push down swiftly.
5. Shake the can to mix the contents rolling it a quarter turn every 15 seconds – mix thoroughly for 1 minute.
6. Remove the plastic filling cup with color indicator.
7. Pointing the spray nozzle away from you – purge can until a smooth spray pattern is achieved.  
Test the spray pattern to ensure there is a good consistent flow.

## Directions For Use

### Surface Preparation:

Substrate should be prepared according to the undercoat instructions prior to topcoat application. See the separate Repair Procedure if you are attempting to fix a damaged substrate.

### Application:

- Apply 1 full wet coat
- Approximately 5 minutes flash off time between coats
- Follow with a 2nd full wet coat
- May require the application of a 3rd full wet coat depending on color depth and to obtain proper film build and gloss appearance



### Dry Time:

#### MAP-LVG

- Air Dry: 50% humidity @ 70°F
- Dry time to handle: 2-5 hours
- Dry time to clearcoat: 4 hours. After 24 hours scuff surface before clearcoat.
- Force Dry: 30 minutes at 120° F
- Full Cure: 10-14 days

#### MAP-LVS

- Air Dry: 50% humidity @ 70°F
- Dry time to handle: 2-5 hours
- Dry time to clearcoat: 4 hours. After 24 hours scuff surface before clearcoat.
- Force Dry: 30 minutes at 120° F
- Full Cure: 10-14 days

### Pot Life:

4 times the pot life of product filled in can, check the specific technical data sheet for the products baseline pot life.

### Finish:

- When material in can is spent, turn can upside down, direct away from any surfaces and depress the nozzle until all propellant is exhausted.
- Shelf Life: 24 months / 70 degrees not filled – filled 12 months from date of fill

### Total Film Build:

Dry film thickness 1.5-2 mils

### Technical Data:

#### RTS Combinations

#### MAP-LV2K15/EZ

Volume Ratio .....	As is (aerosol w/ MAP-LV color)
Applicable Use Category .....	Exact Match Finish-Industrial - EFI
VOC Content (g/L).....	591-624
VOC Content (lbs./US Gal.).....	4.93-5.21
VOC Less Water Less Exempts (g/L).....	527-544
VOC Less Water Less Exempts (lbs./US Gal.).....	4.40-4.54
Solids by weight (RTS) .....	27.59-33.43%
Solids by volume (RTS).....	19.96-22.62%
Sq. Ft. Coverage / can.....	8-12 sq ft @ 2 mil per can 2.0 mil at 100% transfer efficiency
Pencil Hardness .....	HB
MEK Resistance (100 double rubs) .....	No effect @ 1 Day Air Dry
Impact Resistance .....	Forward @ 2 Weeks Air Dry: 150+ in/lbs Reverse @ 2 Weeks Air Dry: 150+ in/lbs

**Technical Data (Continued):**

<b>RTS Combinations</b>	<b>MAP-LV2K15/EZ</b>
1000 Hours Salt Fog .....	Scribe Creep Rating: 9 Face Blister Rating: 9 Adhesion Rating: 5A
500 Hours Humidity Resistance .....	Blisters: None 60 Deg Gloss Retention: 99%
QUV "B" (1500 Hours Exposure).....	60 Deg Gloss Retention: 92% Color Shift: 1.0 Delta E (CIELab)
Chemical Resistance.....	10% NaOH: No Effect 10% HCl: No Effect 10% H2SO4: No Effect Gasoline: Slight Effect
Application Conditions .....	60° F (16° C) minimum 100° F (38° C) maximum

**Can Disposal:**

Place empty can or cans that are no longer to be used into properly labeled metal container. As long as they are depressurized, they should be managed as empty paint cans are handled, if necessary as a hazardous waste pursuant to local, state and federal regulations. Any questions should be forwarded to the local waste authority.

**Precautions:**

Caution! Close container after each use. Do not take internally. Keep out of reach of children.

**Important:**

The contents of this package may require accessing other components before the product can be used. Before opening the packages, be sure you understand the warning messages on the labels of all components. Provide adequate ventilation for health and fire hazard control. Improper spray technique may result in a hazardous condition, personal injury or fire. Follow SDS directions for PPE including appropriate respirator, eye and skin protection. Observe all applicable precautions.

**See Safety Data Sheet and Labels for additional safety information and handling instructions.**

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Materials described are designed for application by professional, trained personnel using proper equipment and are not intended for sale to the general public. Products mentioned may be hazardous and should only be used according to directions, while observing precautions and warning statements listed on label. Statements and methods described are based upon the best information and practices known to Matthews Paint. Procedures for applications mentioned are suggestions only and are not to be construed as representations or warranties as to performance, results, or fitness for any intended use, nor does Matthews Paint warrant freedom from patent infringement in the use of any formula or process set forth herein.

If you require technical assistance, please call us toll-free 800-323-6593.

For professional use only



# CLR Clears

Available in all finishes for a variety of applications, **Matthews Clearcoats** protect your paint job while enhancing its depth and vibrancy. Comprised of the same durable resin as our color lines, Matthews clearcoats provide unparalleled resistance to UV rays, moisture, harsh weather, impact, chemicals, and graffiti.

## Technical Data Sheets

42208SP/01 Matthews Conventional Gloss Clear .....	209-212
SOA365SP/01 Matthews Semi Gloss Clear .....	213-216
42228SP/01 Matthews Satin Clear .....	217-220
42900SP/01 Matthews Matte Clear .....	221-224
SV208SP/01 Acrylic Polyurethane SVOC High Gloss Clear .....	225-228
SV228SP/01 Acrylic Polyurethane SVOC Satin Clear .....	229-232
MAP-LVC208/01 Acrylic Polyurethane Ultra Low VOC Gloss Clear .....	233-236
MAP-LVC228/01 Acrylic Polyurethane Ultra Low VOC Satin Clear .....	237-240
MAP-LVC238/01 Acrylic Polyurethane Ultra Low VOC Matte Clear .....	241-244
SOA4158SP/01 Matthews ADA Clear .....	245-248
42260SP/01 Matthews Braco Gloss Clear .....	249-252
282260SP/01 VOC Braco Gloss Clear .....	253-256
6178SP/01 High Performance Clear .....	257-260
290228-1/KT, 290228-4/KT Super Satin Clear Kit .....	261-264

## The Complete Matthews Paint System





**CLR**  
Clears

# Clear Coats

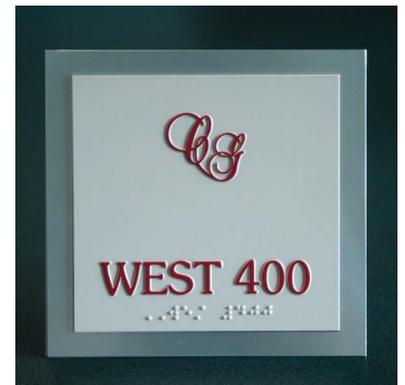


## Superior Vibrancy and Protection!

Using the same durable resin as our proven color line, Matthews clear coats provide unparalleled resistance to the elements, extending the life and maintaining the vibrancy of your project.

### Features & Benefits:

- Provides added protection against chemicals, weather, and handling
- Increases UV protection for both solid and metallic colors
- Adds depth, vibrancy, and overall quality to the color coat below
- Excellent durability over most metal, acrylic, plastic, polycarbonate, photopolymer, sign foam, architectural metals, and MPC topcoats
- Most graffiti removes easily with solvent without damaging finish
- Conventional, Low VOC, and Ultra Low VOC options
- Matte to high gloss finishes available
- Softens tape lines on multi-color applications



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The Complete Matthews Paint System:



Learn More:

760 Pittsburgh Drive • Delaware, OH 43015  
Toll Free: 800.323.6593 • Fax: 800.947.0377  
[www.matthewspaint.com](http://www.matthewspaint.com)



Conventional Clears	Catalyst	Matte 0-8	Satin 15-30	Semi 40-60	Full 80+	Specialty Characteristic
42900SP/01* Matte Clear	43270SP/01 or /04 43999SP/01 43621SP/04	2-3				No flattener needed; Same technology as Satin MAP
SOA1643SP/01** Flat Clear	43270SP/01 or /04 43999SP/01 43621SP/04	5-10				No flattener needed; Flat version of 42900SP/01
42228SP/01* Satin Clear	43270SP/01 or /04 43999SP/01 43621SP/04		15-25			No flattener needed; Satin in the can
SOA4158SP/01* ADA Clear	43270SP/01 or /04 43999SP/01 43621SP/04		12-18			Meets US ADA ACT gloss level requirements
SOA365SP/01* Semi Gloss Clear	43270SP/01 or /04 43999SP/01 43621SP/04		25-35			No flattener needed; Semi gloss in the can
42208SP/01* Gloss Clear	43270SP/01 or /04 43999SP/01 43621SP/04				90+	Full Gloss; Adds depth, Improves vibrancy
SOA6062SP/01** Braco Satin Clear	43270SP/01 or /04 43999SP/01 43621SP/04		15-25			Anti-tarnish protection for brass, bronze, and copper; Satin version of 42260SP/01
42260SP/01* Braco Gloss Clear	43270SP/01 or /04 43999SP/01 43621SP/04				90+	Anti-tarnish protection for brass, bronze, and copper
SOA4436SP/01** No UV Satin Clear	43270SP/01 or /04 43999SP/01 43621SP/04		15-25			Protective satin clear for fluorescent colors—Dark Ride; 42228SP/01 with no UV screeners
SOA5939SP/01** No UV Semi-Gloss Clear	43270SP/01 or /04 43999SP/01 43621SP/04			40-65		Protective semi-gloss clear for fluorescent colors—Dark Ride; SOA365SP/01 with no UV screeners
6178SP/01*† High Performance Clear	6278SP/01				90+	Semi-submersible; Resistant to chlorinated and/or salt water

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\*Standard Stock Item

\*\*Special Order

†Not intended for use as a coating for anti-fouling or use in marine applications

Consult the corresponding technical data sheet for application recommendations and performance characteristics.

**CLR**  
Clears



## Clear Coat Applications:

### Clear Coat Metal

- Preserves appearance of decorative metals
- Protects against weathering
- Allows adjustment of gloss level
- Adds depth to appearance

### Clear Coat Color

- Protects color against weathering
- Adds depth to appearance
- Allows adjustment of gloss level
- Protects color against scuffing and buffing

### Clear Coat Multiple Colors

- Provides consistent gloss appearance over all colors
- Softens tape lines between colors

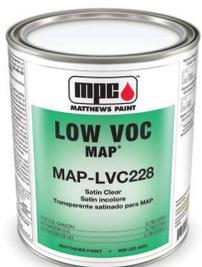
### Alter Gloss Level

- Clear coat satin finish with gloss clear
- Clear coat gloss finish with satin clear
- Meet specifications with ADA gloss compliant clear

Low VOC Clears	Catalyst	Matte 0-8	Satin 15-30	Semi 40-60	Full 80+	Specialty Characteristic
281228SP/01* VOC Satin Clear	283800SP/01		15-25			2.8 or 3.5 VOC Satin Clear; No flattener needed
282208SP/01* VOC Gloss Clear	283800SP/01				90+	2.8 or 3.5 VOC Gloss Clear
282260SP/01* VOC Braco Gloss Clear	283800SP/01				90+	2.8 or 3.5 VOC Gloss; Anti-tarnish protection for brass, bronze, and copper
290228SP/01 or /04* Super Satin Clear	283920SP/4Z or /8Z		15-25			Superior UV resistance; long-term durability and protection
SV228SP/01* SVOC Line Satin Clear	283320SP/01 or /04		15-25			2.8 or 3.5 Satin VOC Clear Coat; Same catalyst as SVOC topcoat
SV208SP/01* SVOC Line Gloss Clear	283320SP/01 or /04				90+	2.8 or 3.5 VOC High Gloss Clear Coat; Same catalyst as SVOC topcoat

Ultra Low VOC Clears	Catalyst	Matte 0-8	Satin 15-30	Semi 40-60	Full 80+	Specialty Characteristic
MAP-LVC238/01* Ultra Low VOC Matte Clear	MAP-LVX270/01 or /04	0-7				<50 g/L (.42 lbs/gl) VOC
MAP-LVC228/01* Ultra Low VOC Satin Clear	MAP-LVX270/01 or /04		15-25			<50 g/L (.42 lbs/gl) VOC
MAP-LVC208/01* Ultra Low VOC Gloss Clear	MAP-LVX270/01 or /04				90+	<50 g/L (.42 lbs/gl) VOC
MAP-UVF238/01** Ultra Low VOC UV Free Matte Clear	MAP-LVX270/01 or /04	0-7				Protective matte clear for fluorescent colors—Dark Ride; MAP-UVF238 with no UV screeners
MAP-UVF228/01** Ultra Low VOC UV Free Satin Clear	MAP-LVX270/01 or /04		15-25			Protective satin clear for fluorescent colors—Dark Ride; MAP-UVF228 with no UV screeners
MAP-UVF208/01** Ultra Low VOC UV Free Gloss Clear	MAP-LVX270/01 or /04				90+	Protective gloss clear for fluorescent colors—Dark Ride; MAP-UVF208 with no UV screeners

Note: variations in gloss level of +/- 5 units can be caused by application, equipment, temperature, solvent selection, accelerator choice, etc.



**Ultra Low VOC**  
options are available  
in matte, satin and  
full-gloss.



**ADA Clear**  
meets all US ADA  
requirements for non-  
glare applications.



**HP Clear†**  
is semi-submersible and  
resistant to chlorinated  
and/or salt water.



**Braco Clear**  
preserves the integrity  
of decorative metals  
that tarnish.



**Super Satin Clear**  
provides the best  
protection, durability  
and color retention.





## Matthews Conventional Gloss Clear

# 42208SP/01

Matthews Acrylic Polyurethane (MAP®)  
 42208SP/01 Gloss Clear is produced from the same technology which makes our colors unparalleled in their resistance to the elements.  
 42208SP/01 Gloss Clear is formulated with UV agents that ensure excellent gloss retention and protection of the color and substrate underneath.  
 42208SP/01 Gloss Clear is designed to protect color coated signage components, vinyl graphics and to highlight architectural metals.



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### Features:

### Benefits:

Durable gloss finish .....	Adds depth and appearance
Air-dry or force-dry capable.....	Fits most shop conditions
Excellent UV resistance .....	Excellent color and gloss retention; Extended life cycle; Reduced maintenance costs
2K Acrylic polyurethane .....	Resistance to weathering; Resistance to chalking; Long-term durability
Brush and roll capability .....	For use in areas where air spraying is prohibited
Graffiti Resistant .....	Most chemical graffiti can be removed with an appropriate solvent once finish is fully cured

### Compatible Surfaces:

**42208SP/01 Gloss Clear may be applied over properly prepared:**

MAP Acrylic Polyurethane	74777SP/01 Tie Bond
Satin MAP Acrylic Polyurethane	274777SP/01 Low VOC Tie Bond
Low VOC Satin Acrylic Polyurethane	274793SP/01 Low VOC Spray Bond

### Associated Products:

#### Catalyst

43270SP/01\* Universal Catalyst  
 43621SP/04 Brushing Catalyst  
 (For brush or roller application)  
 43999SP/01 Slow Catalyst  
 (For hot weather, bake application  
 or for very large substrates)

\*Also available in /04

#### Reducer

6379SP/01 Cool temperature, 60 - 75°F (16 - 24°C)  
 45280SP/01 Warm temperature, 70 - 80°F (21 - 27°C)  
 45290SP/01 Very warm temperature, 75 - 85°F (24 - 29°C)  
 6396SP/01 Hot temperature, 80°F (27°C) & above  
 45251SP/01 Retarder, to be blended up to 50%  
 with reducer. Not to be used by itself.

#### Accelerator

287437SP/08 HS Accelerator  
 47117SP/04 MAP Accelerator  
 287484SP/08 HS Turbo Enhancer  
 MAP-LVA117/08 Ultra Low VOC Accelerator

# 42208SP/01

## Directions for Use

**Surface Preparation:** Substrate should be prepared according to Matthews Substrate Preparation Guide prior to topcoat application.

**Mix Ratio:**



Mix Ratio for Spraying (by volume)

42208SP/01	43270SP/01 or /04, 43999SP/01	Reducer*	with Accelerator
3 parts	1 part	1 part	Optional**

\*Choose MAP reducer

- 6379SP/01 Cool temperature, 60 - 75°F (16 - 24°C)
- 45280SP/01 Warm temperature, 70 - 80°F (21 - 27°C)
- 45290SP/01 Very warm temperature, 75 - 85°F (24 - 29°C)
- 6396SP/01 Hot temperature, 80°F (27°C) & above
- 45251SP/01 Retarder, to be blended up to 50% with reducer. Not to be used by itself.
- NOTE: Larger jobs may require a hotter temperature reducer.

\*\*Refer to MPC218 for optional accelerators and amounts.

- For Brushing and Rolling, refer to Technical Data Sheet MPC159.
- All components should be mixed thoroughly before using
- Strain material after mixing



**Pot Life:** Pot-life is the amount of time before spray viscosity doubles. These are estimates based on lab results at 50% relative humidity, 70°F/21°C—results will vary based on application conditions, reducer selection, and accelerator choice.

Note: mix no more product than can be used within time limits listed below:

Application Method	Accelerator*	Max load of accelerator per RTS qt	Pot-Life
Spraying	Without Accelerator		8 hours
	287437SP/08	1.5 oz	2 hours
	MAP-LVA117/08	1 oz	45 min
	47117SP/04	1 oz	1 hour
	287484SP/08	.5 oz	1 hour
Brush and Roll	Accelerator is Not Recommended when brushing or rolling		8 hours

\*Times listed in the chart above are for a full load of accelerator. Refer to MPC218 for optional accelerators and amounts.

**Additives:**



None required, but the following may be used for specific application or project needs:

- 47888SP/01 Flattening Paste (refer to MPC204)
- 287112SP/04 Medium Suede Additive
- 287113SP/04 Suede Additive
- 287103SP/01 Low VOC Basecoat Converter
- 47444SP/04 Brush/Roller Additive
- 47474SP/04 Flex Additive
- SOA955SP/01 Matting Clear (refer to MPC205)

# 42208SP/01

## Directions for Use

### Spray Set Up:



Air Pressure: Conventional: 40 - 50 psi at the gun\*  
 HVLP: 10 psi at the cap\*  
 \* Refer to spray gun manufacturer recommendations for inlet pressure.



Pressure Pot Fluid Delivery: 8 - 12 Fluid Ounces per Minute



Gun Set Up: Siphon Feed: 1.2 - 1.4 mm 0.047 - 0.055 fluid tip  
 HVLP: 1.2 - 1.4 mm 0.047 - 0.055 fluid tip  
 Pressure Pot: 1.0 - 1.2 mm 0.039 - 0.047 fluid tip

### Application:



Apply: Apply two full wet coats, allowing proper flash time\* between coats. Apply additional coats as necessary to achieve total dry film thickness and/or metallic control.

\*Flash times will vary dependent upon film thickness, temperature, solvent selection, spray gun set-up, application, etc.

Recommended Film Thickness:	Wet Film Thickness (WFT)	Per Coat	Total
		3 - 4 mils	6 - 8 mils
	Dry Film Thickness (DFT)	1 mils	2 mils

**Caution:** All 2-component crosslinking slows significantly at temperatures below 60°F or 16°C. Never spray or subject freshly painted coatings to these conditions or loss of gloss, decreased durability and improper curing can occur.

### Estimated Drying Times:



Air-Dry @ 50% Relative Humidity, 70°F/21°C  
 42208SP/01 (mixed 3:1:1 with catalyst and reducer)

Accelerator*	Dust Free	Set to Touch	Dry to Handle	Tape Time	Vinyl Application (2-3 mils)	Reflective Metallic Vinyl Application
Without Accelerator	15 minutes	30 min-1 hour	1.5-2 hours	16 hours	48 hours	96 hours
287437SP/08	15 minutes	30-45 minutes	1-1.5 hours	1 hour	24 hours	48 hours
MAP-LVA117/08	15 minutes	30-45 minutes	1-1.5 hours	45 minutes	24 hours	48 hours
47117SP/04	15 minutes	30-45 minutes	45 min-1 hour	45 minutes	24 hours	48 hours
287484SP/08	15 minutes	30-45 minutes	45 min-1 hour	2 hours	8 hours	24 hours

\*Times listed in the chart above are for a full load of accelerator. Refer to MPC218 for optional accelerators and amounts.

**Recoating:** Paint films cured over 24 hours should be cleaned, lightly dry scuff sanded with 320 – 400g by hand/machine or wet sanded with 600g, then cleaned again before recoating.

**Force Dry:** Allow 30 minute purge before baking to prevent solvent popping. Bake for 40 minutes at 140°.

### Equipment Cleaning:

Clean equipment promptly with lacquer thinner or equivalent cleaning solvent.

**Note: Do not leave mixed material in equipment.**

# 42208SP/01

**Matthews Conventional  
Gloss Clear**

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**Technical Data:****VOC Information**

VOC Actual RTS	5.23 lbs/gal
VOC Actual RTS	627 g/L
VOC Regulatory (less water less exempt) RTS	5.23 lbs/gal
VOC Regulatory (less water less exempt) RTS	627 g/L

For complete VOC information, visit [MatthewsPaint.com](http://MatthewsPaint.com) > Quick Links > VOC Data

**Performance Characteristics**

Volume solids (RTS)	27.81%
Theoretical Coverage (1 mil @ 100% transfer efficiency)	500 sq.ft./RTS gal
Application Conditions - Temperature	60°F (16°C) Minimum 100°F (38°C) Maximum
Application Conditions - Relative Humidity	85% maximum 5° above dew point

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**Important:**

The contents of this package may have to be blended with other components before the product can be used. Before opening the packages, be sure you understand the warning messages on the labels of all components, since the mixture will have the hazards of all its parts. Improper spray technique may result in a hazardous condition. Follow spray equipment manufacturer's instructions to prevent personal injury or fire. Follow directions for respirator use. Wear eye and skin protection. Observe all applicable precautions.

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**See Safety Data Sheet and Labels for additional safety information and handling instructions.**

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**Matthews Semi Gloss Clear**

# SOA365SP/01

Matthews Acrylic Polyurethane (MAP®) SOA365SP/01 Semi Gloss Clear is produced from the same technology which makes our colors unparalleled in their resistance to the elements.

SOA365SP/01 Semi Gloss Clear is formulated with a UV screening package that ensures excellent gloss retention and protection of the color and substrate underneath.

SOA365SP/01 is designed to protect color-coated signage components and vinyl graphics or to highlight architectural metals.



**Features:**

**Benefits:**

Semi gloss-in-the-can.....	No additional flattening agent needed; Consistent gloss and finish; Less time to mix
Air-dry or force-dry capable.....	Fits most shop conditions
Excellent UV resistance .....	Excellent color and gloss retention; Extended life cycle; Reduced maintenance costs
2K Acrylic polyurethane .....	Resistance to weathering; Resistance to chalking; Long-term durability
Brush and roll capability .....	For use in areas where air spraying is prohibited
Graffiti Resistant .....	Most chemical graffiti can be removed with an appropriate solvent once finish is fully cured

**Compatible Surfaces:**

**SOA365SP/01 Semi Gloss Clear may be applied over properly prepared:**

MAP Acrylic Polyurethane	74777SP/01 Tie Bond
Satin MAP Acrylic Polyurethane	274777SP/01 Low VOC Tie Bond
Low VOC Satin Acrylic Polyurethane	274793SP/01 Low VOC Spray Bond

**Associated Products:**

**Catalyst**

- 43270SP/01\* Universal Catalyst
- 43621SP/04 Brushing Catalyst  
(For brush or roller application)
- 43999SP/01 Slow Catalyst  
(For hot weather, bake application or for very large substrates)

\*Also available in /04

**Reducer**

- 6379SP/01 Cool temperature, 60 - 75°F (16 - 24°C)
- 45280SP/01 Warm temperature, 70 - 80°F (21 - 27°C)
- 45290SP/01 Very warm temperature, 75 - 85°F (24 - 29°C)
- 6396SP/01 Hot temperature, 80°F (27°C) & above
- 45251SP/01 Retarder, to be blended up to 50% with reducer. Not to be used by itself.

**Accelerator**

- 287437SP/08 HS Accelerator
- 47117SP/04 MAP Accelerator
- 287484SP/08 HS Turbo Enhancer
- MAP-LVA117/08 Ultra Low VOC Accelerator

# SOA365SP/01

## Directions for Use

**Surface Preparation:** Substrate should be prepared according to Matthews Substrate Preparation Guide prior to topcoat application.

**Mix Ratio:**



Mix Ratio for Spraying (by volume)

SOA365SP/01	43270SP/01 or /04, 43999SP/01	Reducer*	with Accelerator
3 parts	1 part	1 part	Optional**

\*Choose MAP reducer

- 6379SP/01 Cool temperature, 60 - 75°F (16 - 24°C)
- 45280SP/01 Warm temperature, 70 - 80°F (21 - 27°C)
- 45290SP/01 Very warm temperature, 75 - 85°F (24 - 29°C)
- 6396SP/01 Hot temperature, 80°F (27°C) & above
- 45251SP/01 Retarder, to be blended up to 50% with reducer. Not to be used by itself.
- NOTE: Larger jobs may require a hotter temperature reducer.

\*\*Refer to MPC218 for optional accelerators and amounts.

- For Brushing and Rolling, refer to Technical Data Sheet MPC159.
- All components should be mixed thoroughly before using
- Strain material after mixing



**Pot Life:** Pot-life is the amount of time before spray viscosity doubles. These are estimates based on lab results at 50% relative humidity, 70°F/21°C—results will vary based on application conditions, reducer selection, and accelerator choice.

Note: mix no more product than can be used within time limits listed below:

Application Method	Accelerator*	Max load of accelerator per RTS qt	Pot-Life
Spraying	Without Accelerator		8 hours
	287437SP/08	1.5 oz	2 hours
	MAP-LVA117/08	1 oz	45 min
	47117SP/04	1 oz	1 hour
	287484SP/08	.5 oz	1 hour
Brush and Roll	Accelerator is Not Recommended when brushing or rolling		8 hours

\*Times listed in the chart above are for a full load of accelerator. Refer to MPC218 for optional accelerators and amounts.

**Additives:**



None required, but the following may be used for specific application or project needs:

- 47888SP/01 Flattening Paste (refer to MPC204)
- 287112SP/04 Medium Suede Additive
- 287113SP/04 Suede Additive
- 287103SP/01 Low VOC Basecoat Converter
- 47444SP/04 Brush/Roller Additive
- 47474SP/04 Flex Additive
- SOA955SP/01 Matting Clear (refer to MPC205)

# SOA365SP/01

## Directions for Use

### Spray Set Up:



Air Pressure: Conventional: 40 - 50 psi at the gun\*  
 HVLP: 10 psi at the cap\*  
 \* Refer to spray gun manufacturer recommendations for inlet pressure.



Pressure Pot Fluid Delivery: 8 - 12 Fluid Ounces per Minute



Gun Set Up: Siphon Feed: 1.2 - 1.4 mm 0.047 - 0.055 fluid tip  
 HVLP: 1.2 - 1.4 mm 0.047 - 0.055 fluid tip  
 Pressure Pot: 1.0 - 1.2 mm 0.039 - 0.047 fluid tip

### Application:



Apply: Apply two full wet coats, allowing proper flash time\* between coats. Apply additional coats as necessary to achieve total dry film thickness and/or metallic control.

\*Flash times will vary dependent upon film thickness, temperature, solvent selection, spray gun set-up, application, etc.

Recommended Film Thickness:	Wet Film Thickness (WFT)	Per Coat	Total
		3 - 4 mils	6 - 8 mils
	Dry Film Thickness (DFT)	1 mils	2 mils

**Caution:** All 2-component crosslinking slows significantly at temperatures below 60°F or 16°C. Never spray or subject freshly painted coatings to these conditions or loss of gloss, decreased durability and improper curing can occur.

### Estimated Drying Times:



Air-Dry @ 50% Relative Humidity, 70°F/21°C  
 SOA365SP/01 (mixed 3:1:1 with catalyst and reducer)

Accelerator*	Dust Free	Set to Touch	Dry to Handle	Tape Time	Vinyl Application (2-3 mils)	Reflective Metallic Vinyl Application
Without Accelerator	15 minutes	30 min-1 hour	1.5-2 hours	16 hours	48 hours	96 hours
287437SP/08	15 minutes	30-45 minutes	1-1.5 hours	1 hour	24 hours	48 hours
MAP-LVA117/08	15 minutes	30-45 minutes	1-1.5 hours	45 minutes	24 hours	48 hours
47117SP/04	15 minutes	30-45 minutes	45 min-1 hour	45 minutes	24 hours	48 hours
287484SP/08	15 minutes	30-45 minutes	45 min-1 hour	2 hours	8 hours	24 hours

\*Times listed in the chart above are for a full load of accelerator. Refer to MPC218 for optional accelerators and amounts.

**Recoating:** Paint films cured over 24 hours should be cleaned, lightly dry scuff sanded with 320 – 400g by hand/machine or wet sanded with 600g, then cleaned again before recoating.

**Force Dry:** Allow 30 minute purge before baking to prevent solvent popping. Bake for 40 minutes at 140°.

### Equipment Cleaning:

Clean equipment promptly with lacquer thinner or equivalent cleaning solvent.

**Note: Do not leave mixed material in equipment.**

# SOA365SP/01

**Matthews Semi  
Gloss Clear**

## Technical Data:

### VOC Information

VOC Actual RTS	4.85 - 5.45 lbs/gal
VOC Actual RTS	581 - 653 g/L
VOC Regulatory (less water less exempt) RTS	4.85 - 5.45 lbs/gal
VOC Regulatory (less water less exempt) RTS	581 - 653 g/L

For complete VOC information, visit [MatthewsPaint.com](http://MatthewsPaint.com) > Quick Links > VOC Data

### Performance Characteristics

Volume solids (RTS)	27.45%
Theoretical Coverage (1 mil @ 100% transfer efficiency)	500 sq.ft./RTS gal
Application Conditions - Temperature	60°F (16°C) Minimum 100°F (38°C) Maximum
Application Conditions - Relative Humidity	85% maximum 5° above dew point

## Important:

The contents of this package may have to be blended with other components before the product can be used. Before opening the packages, be sure you understand the warning messages on the labels of all components, since the mixture will have the hazards of all its parts. Improper spray technique may result in a hazardous condition. Follow spray equipment manufacturer's instructions to prevent personal injury or fire. Follow directions for respirator use. Wear eye and skin protection. Observe all applicable precautions.

**See Safety Data Sheet and Labels for additional safety information and handling instructions.**

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## Matthews Satin Clear

# 42228SP/01

Matthews Acrylic Polyurethane (MAP®)  
42228SP/01 Satin Clear is produced from the same technology which makes our colors unparalleled in their resistance to the elements.

42228SP/01 Satin Clear is formulated with a UV screening package that ensures protection of the color and substrate underneath.

42228SP/01 Satin Clear is designed for topcoat applications and to protect color-coated signage components and vinyl graphics and to highlight architectural metals.



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### Features:

### Benefits:

Satin gloss-in-the-can.....	No additional flattening agent needed; Consistent gloss and finish; Less time to mix
Air-dry or force-dry capable.....	Fits most shop conditions
Excellent UV resistance .....	Excellent color and gloss retention; Extended life cycle; Reduced maintenance costs
2K Acrylic polyurethane .....	Resistance to weathering; Resistance to chalking; Long-term durability
Brush and roll capability .....	For use in areas where air spraying is prohibited
Graffiti Resistant .....	Most chemical graffiti can be removed with an appropriate solvent once finish is fully cured

### Compatible Surfaces:

#### 42228SP/01 Satin Clear may be applied over properly prepared:

MAP Acrylic Polyurethane	74777SP/01 Tie Bond
Satin MAP Acrylic Polyurethane	274777SP/01 Low VOC Tie Bond
Low VOC Satin Acrylic Polyurethane	274793SP/01 Low VOC Spray Bond

### Associated Products:

#### Catalyst

- 43270SP/01\* Universal Catalyst
- 43621SP/04 Brushing Catalyst  
(For brush or roller application)
- 43999SP/01 Slow Catalyst  
(For hot weather, bake application or for very large substrates)

\*Also available in /04

#### Reducer

- 6379SP/01 Cool temperature, 60 - 75°F (16 - 24°C)
- 45280SP/01 Warm temperature, 70 - 80°F (21 - 27°C)
- 45290SP/01 Very warm temperature, 75 - 85°F (24 - 29°C)
- 6396SP/01 Hot temperature, 80°F (27°C) & above
- 45251SP/01 Retarder, to be blended up to 50% with reducer. Not to be used by itself.

#### Accelerator

- 287437SP/08 HS Accelerator
- 47117SP/04 MAP Accelerator
- 287484SP/08 HS Turbo Enhancer
- MAP-LVA117/08 Ultra Low VOC Accelerator

# 42228SP/01

## Directions for Use

**Surface Preparation:** Substrate should be prepared according to Matthews Substrate Preparation Guide prior to topcoat application.

**Mix Ratio:**



Mix Ratio for Spraying (by volume)

42228SP/01	43270SP/01 or /04, 43999SP/01	Reducer*	with Accelerator
3 parts	1 part	1 part	Optional**

\*Choose MAP reducer

- 6379SP/01 Cool temperature, 60 - 75°F (16 - 24°C)
- 45280SP/01 Warm temperature, 70 - 80°F (21 - 27°C)
- 45290SP/01 Very warm temperature, 75 - 85°F (24 - 29°C)
- 6396SP/01 Hot temperature, 80°F (27°C) & above
- 45251SP/01 Retarder, to be blended up to 50% with reducer. Not to be used by itself.
- NOTE: Larger jobs may require a hotter temperature reducer.

\*\*Refer to MPC218 for optional accelerators and amounts.

- For Brushing and Rolling, refer to Technical Data Sheet MPC159.
- All components should be mixed thoroughly before using
- Strain material after mixing



**Pot Life:** Pot-life is the amount of time before spray viscosity doubles. These are estimates based on lab results at 50% relative humidity, 70°F/21°C—results will vary based on application conditions, reducer selection, and accelerator choice.

Note: mix no more product than can be used within time limits listed below:

Application Method	Accelerator*	Max load of accelerator per RTS qt	Pot-Life
Spraying	Without Accelerator		8 hours
	287437SP/08	1.5 oz	2 hours
	MAP-LVA117/08	1 oz	45 min
	47117SP/04	1 oz	1 hour
	287484SP/08	.5 oz	1 hour
Brush and Roll	Accelerator is Not Recommended when brushing or rolling		8 hours

\*Times listed in the chart above are for a full load of accelerator. Refer to MPC218 for optional accelerators and amounts.

**Additives:**



None required, but the following may be used for specific application or project needs:

- 47888SP/01 Flattening Paste (refer to MPC204)
- 287112SP/04 Medium Suede Additive
- 287113SP/04 Suede Additive
- 287103SP/01 Low VOC Basecoat Converter
- 47444SP/04 Brush/Roller Additive
- 47474SP/04 Flex Additive
- SOA955SP/01 Matting Clear (refer to MPC205)

# 42228SP/01

## Directions for Use

### Spray Set Up:



Air Pressure: Conventional: 40 - 50 psi at the gun\*  
 HVLP: 10 psi at the cap\*  
 \* Refer to spray gun manufacturer recommendations for inlet pressure.



Pressure Pot Fluid Delivery: 8 - 12 Fluid Ounces per Minute



Gun Set Up: Siphon Feed: 1.2 - 1.4 mm 0.047 - 0.055 fluid tip  
 HVLP: 1.2 - 1.4 mm 0.047 - 0.055 fluid tip  
 Pressure Pot: 1.0 - 1.2 mm 0.039 - 0.047 fluid tip

### Application:



Apply: Apply two full wet coats, allowing proper flash time\* between coats. Apply additional coats as necessary to achieve total dry film thickness and/or metallic control.

\*Flash times will vary dependent upon film thickness, temperature, solvent selection, spray gun set-up, application, etc.

Recommended Film Thickness:	Wet Film Thickness (WFT)	Per Coat	Total
		3 - 4 mils	6 - 8 mils
	Dry Film Thickness (DFT)	1 mils	2 mils

**Caution:** All 2-component crosslinking slows significantly at temperatures below 60°F or 16°C. Never spray or subject freshly painted coatings to these conditions or loss of gloss, decreased durability and improper curing can occur.

### Estimated Drying Times:



Air-Dry @ 50% Relative Humidity, 70°F/21°C  
 42228SP/01 (mixed 3:1:1 with catalyst and reducer)

Accelerator*	Dust Free	Set to Touch	Dry to Handle	Tape Time	Vinyl Application (2-3 mils)	Reflective Metallic Vinyl Application
Without Accelerator	15 minutes	30 min-1 hour	1.5-2 hours	16 hours	48 hours	96 hours
287437SP/08	15 minutes	30-45 minutes	1-1.5 hours	1 hour	24 hours	48 hours
MAP-LVA117/08	15 minutes	30-45 minutes	1-1.5 hours	45 minutes	24 hours	48 hours
47117SP/04	15 minutes	30-45 minutes	45 min-1 hour	45 minutes	24 hours	48 hours
287484SP/08	15 minutes	30-45 minutes	45 min-1 hour	2 hours	8 hours	24 hours

\*Times listed in the chart above are for a full load of accelerator. Refer to MPC218 for optional accelerators and amounts.

**Recoating:** Paint films cured over 24 hours should be cleaned, lightly dry scuff sanded with 320 – 400g by hand/machine or wet sanded with 600g, then cleaned again before recoating.

**Force Dry:** Allow 30 minute purge before baking to prevent solvent popping. Bake for 40 minutes at 140°.

### Equipment Cleaning:

Clean equipment promptly with lacquer thinner or equivalent cleaning solvent.

**Note: Do not leave mixed material in equipment.**

# 42228SP/01

**Matthews Satin Clear**

**Technical Data:**

**VOC Information**

VOC Actual RTS	4.78 - 5.38 lbs/gal
VOC Actual RTS	572 - 645 g/L
VOC Regulatory (less water less exempt) RTS	4.78 - 5.38 lbs/gal
VOC Regulatory (less water less exempt) RTS	572 - 645 g/L

For complete VOC information, visit [MatthewsPaint.com](http://MatthewsPaint.com) > Quick Links > VOC Data

**Performance Characteristics**

Volume solids (RTS)	28.31%
Theoretical Coverage (1 mil @ 100% transfer efficiency)	500 sq.ft./RTS gal
Application Conditions - Temperature	60°F (16°C) Minimum 100°F (38°C) Maximum
Application Conditions - Relative Humidity	85% maximum 5° above dew point

**Important:**

The contents of this package may have to be blended with other components before the product can be used. Before opening the packages, be sure you understand the warning messages on the labels of all components, since the mixture will have the hazards of all its parts. Improper spray technique may result in a hazardous condition. Follow spray equipment manufacturer's instructions to prevent personal injury or fire. Follow directions for respirator use. Wear eye and skin protection. Observe all applicable precautions.

**See Safety Data Sheet and Labels for additional safety information and handling instructions.**

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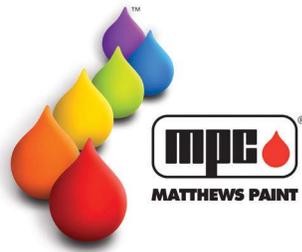
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**Matthews Matte Clear**

# 42900SP/01

Matthews Acrylic Polyurethane (MAP®)  
 42900SP/01 Matte Clear is produced from the same technology which makes our colors unparalleled in their resistance to the elements.

42900SP/01 Matte Clear is formulated with a UV screening package that ensures protection of the color and substrate underneath.

42900SP/01 Matte Clear is designed for topcoat applications and to protect color-coated signage components and vinyl graphics and to highlight architectural metals.



**Features:**

**Benefits:**

Matte gloss-in-the-can .....	No additional flattening agent needed; Consistent gloss and finish; Less time to mix
Air-dry or force-dry capable .....	Fits most shop conditions
Excellent UV resistance .....	Excellent color and gloss retention; Extended life cycle; Reduced maintenance costs
2K Acrylic polyurethane .....	Resistance to weathering; Resistance to chalking; Long-term durability
Brush and roll capability .....	For use in areas where air spraying is prohibited

**Compatible Surfaces:**

**42900SP/01 Matte Clear may be applied over properly prepared:**

MAP Acrylic Polyurethane	74777SP/01 Tie Bond
Satin MAP Acrylic Polyurethane	274777SP/01 Low VOC Tie Bond
Low VOC Satin Acrylic Polyurethane	274793SP/01 Low VOC Spray Bond

**Associated Products:**

**Catalyst**

43270SP/01\* Universal Catalyst  
 43621SP/04 Brushing Catalyst  
 (For brush or roller application)  
 43999SP/01 Slow Catalyst  
 (For hot weather, bake application or for very large substrates)

\*Also available in /04

**Reducer**

6379SP/01 Cool temperature, 60 - 75°F (16 - 24°C)  
 45280SP/01 Warm temperature, 70 - 80°F (21 - 27°C)  
 45290SP/01 Very warm temperature, 75 - 85°F (24 - 29°C)  
 6396SP/01 Hot temperature, 80°F (27°C) & above  
 45251SP/01 Retarder, to be blended up to 50% with reducer. Not to be used by itself.

**Accelerator**

287437SP/08 HS Accelerator  
 47117SP/04 MAP Accelerator  
 287484SP/08 HS Turbo Enhancer  
 MAP-LVA117/08 Ultra Low VOC Accelerator

# 42900SP/01

## Directions for Use

**Surface Preparation:** Substrate should be prepared according to Matthews Substrate Preparation Guide prior to topcoat application.

**Mix Ratio:**



Mix Ratio for Spraying (by volume)

42900SP/01	43270SP/01 or /04, 43999SP/01	Reducer*	with Accelerator
3 parts	1 part	1 part	Optional**

\*Choose MAP reducer

- 6379SP/01 Cool temperature, 60 - 75°F (16 - 24°C)
- 45280SP/01 Warm temperature, 70 - 80°F (21 - 27°C)
- 45290SP/01 Very warm temperature, 75 - 85°F (24 - 29°C)
- 6396SP/01 Hot temperature, 80°F (27°C) & above
- 45251SP/01 Retarder, to be blended up to 50% with reducer. Not to be used by itself.
- NOTE: Larger jobs may require a hotter temperature reducer.

\*\*Refer to MPC218 for optional accelerators and amounts.

- For Brushing and Rolling, refer to Technical Data Sheet MPC159.
- All components should be mixed thoroughly before using
- Strain material after mixing



**Pot Life:** Pot-life is the amount of time before spray viscosity doubles. These are estimates based on lab results at 50% relative humidity, 70°F/21°C—results will vary based on application conditions, reducer selection, and accelerator choice.

Note: mix no more product than can be used within time limits listed below:

Application Method	Accelerator*	Max load of accelerator per RTS qt	Pot-Life
Spraying	Without Accelerator		8 hours
	287437SP/08	1.5 oz	2 hours
	MAP-LVA117/08	1 oz	45 min
	47117SP/04	1 oz	1 hour
	287484SP/08	.5 oz	1 hour
Brush and Roll	Accelerator is Not Recommended when brushing or rolling		8 hours

\*Times listed in the chart above are for a full load of accelerator. Refer to MPC218 for optional accelerators and amounts.

**Additives:**



None required, but the following may be used for specific application or project needs:

- 47888SP/01 Flattening Paste (refer to MPC204)
- 287112SP/04 Medium Suede Additive
- 287113SP/04 Suede Additive
- 287103SP/01 Low VOC Basecoat Converter
- 47444SP/04 Brush/Roller Additive
- 47474SP/04 Flex Additive
- SOA955SP/01 Matting Clear (refer to MPC205)

# 42900SP/01

## Directions for Use

### Spray Set Up:



Air Pressure: Conventional: 40 - 50 psi at the gun\*  
 HVLP: 10 psi at the cap\*  
 \* Refer to spray gun manufacturer recommendations for inlet pressure.



Pressure Pot Fluid Delivery: 8 - 12 Fluid Ounces per Minute



Gun Set Up: Siphon Feed: 1.2 - 1.4 mm 0.047 - 0.055 fluid tip  
 HVLP: 1.2 - 1.4 mm 0.047 - 0.055 fluid tip  
 Pressure Pot: 1.0 - 1.2 mm 0.039 - 0.047 fluid tip

### Application:



Apply: Apply two full wet coats, allowing proper flash time\* between coats. Apply additional coats as necessary to achieve total dry film thickness and/or metallic control.

\*Flash times will vary dependent upon film thickness, temperature, solvent selection, spray gun set-up, application, etc.

Recommended Film Thickness:	Wet Film Thickness (WFT)	Per Coat	Total
		3 - 4 mils	6 - 8 mils
	Dry Film Thickness (DFT)	1 mils	2 mils

**Caution:** All 2-component crosslinking slows significantly at temperatures below 60°F or 16°C. Never spray or subject freshly painted coatings to these conditions or loss of gloss, decreased durability and improper curing can occur.

### Estimated Drying Times:



Air-Dry @ 50% Relative Humidity, 70°F/21°C  
 42900SP/01 (mixed 3:1:1 with catalyst and reducer)

Accelerator*	Dust Free	Set to Touch	Dry to Handle	Tape Time	Vinyl Application (2-3 mils)	Reflective Metallic Vinyl Application
Without Accelerator	15 minutes	30 min-1 hour	1.5-2 hours	16 hours	48 hours	96 hours
287437SP/08	15 minutes	30-45 minutes	1-1.5 hours	1 hour	24 hours	48 hours
MAP-LVA117/08	15 minutes	30-45 minutes	1-1.5 hours	45 minutes	24 hours	48 hours
47117SP/04	15 minutes	30-45 minutes	45 min-1 hour	45 minutes	24 hours	48 hours
287484SP/08	15 minutes	30-45 minutes	45 min-1 hour	2 hours	8 hours	24 hours

\*Times listed in the chart above are for a full load of accelerator. Refer to MPC218 for optional accelerators and amounts.

**Recoating:** Paint films cured over 24 hours should be cleaned, lightly dry scuff sanded with 320 – 400g by hand/machine or wet sanded with 600g, then cleaned again before recoating.

**Force Dry:** Allow 30 minute purge before baking to prevent solvent popping. Bake for 40 minutes at 140°.

### Equipment Cleaning:

Clean equipment promptly with lacquer thinner or equivalent cleaning solvent.

**Note: Do not leave mixed material in equipment.**

# 42900SP/01

**Matthews Matte Clear**

**Technical Data:**

**VOC Information**

VOC Actual RTS	4.65 - 5.26 lbs/gal
VOC Actual RTS	557 - 630 g/L
VOC Regulatory (less water less exempt) RTS	4.65 - 5.26 lbs/gal
VOC Regulatory (less water less exempt) RTS	557 - 630 g/L

For complete VOC information, visit [MatthewsPaint.com](http://MatthewsPaint.com) > Quick Links > VOC Data

**Performance Characteristics**

Volume solids (RTS)	29.98%
Theoretical Coverage (1 mil @ 100% transfer efficiency)	500 sq.ft./RTS gal
Application Conditions - Temperature	60°F (16°C) Minimum 100°F (38°C) Maximum
Application Conditions - Relative Humidity	85% maximum 5° above dew point

**Important:**

The contents of this package may have to be blended with other components before the product can be used. Before opening the packages, be sure you understand the warning messages on the labels of all components, since the mixture will have the hazards of all its parts. Improper spray technique may result in a hazardous condition. Follow spray equipment manufacturer's instructions to prevent personal injury or fire. Follow directions for respirator use. Wear eye and skin protection. Observe all applicable precautions.

**See Safety Data Sheet and Labels for additional safety information and handling instructions.**

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**Acrylic Polyurethane SVOC High Gloss Clear**

# SV208SP/01

SV208SP/01 VOC Gloss Clear is a two-component, 2.8 or 3.5 VOC acrylic polyurethane with a gloss finish. It is produced from the same technology that makes our colors unparalleled in their resistance to the elements.

SV208SP/01 is formulated with a UV screening package that ensures protection of the color and substrate underneath.

SV208SP/01 is designed for topcoat applications to protect color-coated signage components and vinyl graphics or to highlight architectural metals.



**Features:**

**Benefits:**

- Durable gloss finish .....Adds depth and appearance
- Air-dry or force-dry capable.....Fits most shop conditions
- Excellent UV resistance .....Excellent color and gloss retention; Extended life cycle; Reduced maintenance costs
- 2K Acrylic polyurethane .....Resistance to weathering; Resistance to chalking; Long-term durability
- Brush and roll capability .....For use in areas where air spraying is prohibited
- Low VOC technology .....Environmentally friendly; Complies with VOC requirements

**Compatible Surfaces:**

**SV208SP/01 may be applied over properly prepared:**

- MAP Acrylic Polyurethane
- Satin MAP Acrylic Polyurethane
- Low VOC Satin Acrylic Polyurethane
- 74777SP/01 Tie Bond
- 274777SP/01 Low VOC Tie Bond
- 274793SP/01 Low VOC Spray Bond

**Associated Products:**

**Catalyst**

- 283320SP/01\* Satin VOC Catalyst
- \*Also available in /04

**3.5 VOC Reducer**

- 6300SP/01 Cool temperature, 60 - 75°F (16 - 24°C)
- 6301SP/01 Warm temperature, 70 - 85°F (21 - 29°C)
- 6302SP/01 Hot temperature, 80°F (27°C) & above
- 2.8 VOC Reducer**
- 6370SP/01 Cool temperature, 60 - 75°F (16 - 24°C)
- 6371SP/01 Warm temperature, 70 - 85°F (21 - 29°C)
- 6372SP/01 Hot temperature, 80°F (27°C) & above

**Accelerator**

- 287437SP/08 HS Accelerator
- 47117SPMAP/04 Accelerator
- 287484SP/08 HS Turbo Enhancer
- MAP-LVA117/08 Ultra Low VOC Accelerator

# SV208SP/01

## Directions for Use

**Surface Preparation:** Substrate should be prepared according to Matthews Substrate Preparation Guide prior to topcoat application.

**Mix Ratio:**



Mix Ratio for Spraying (by volume)

SV208SP/01	283320SP/01 or /04	Reducer*	with Accelerator
3 parts	1 part	1 part	Optional**

\*Choose VOC MAP reducer

**3.5 VOC Reducer**

- 6300SP/01 Cool temperature, 60 - 75°F (16 - 24°C)
- 6301SP/01 Warm temperature, 70 - 85°F (21 - 29°C)
- 6302SP/01 Hot temperature, 80°F (27°C) & above

**2.8 VOC Reducer**

- 6370SP/01 Cool temperature, 60 - 75°F (16 - 24°C)
- 6371SP/01 Warm temperature, 70 - 85°F (21 - 29°C)
- 6372SP/01 Hot temperature, 80°F (27°C) & above
- NOTE: Larger jobs may require a hotter temperature reducer.

\*\*Refer to MPC218 for optional accelerators and amounts.

- For Brushing and Rolling, refer to Technical Data Sheet MPC159.
- All components should be mixed thoroughly before using
- Strain material after mixing



**Pot Life:** Pot-life is the amount of time before spray viscosity doubles. These are estimates based on lab results at 50% relative humidity, 70°F/21°C—results will vary based on application conditions, reducer selection, and accelerator choice.

Note: mix no more product than can be used within time limits listed below:

Application Method	Accelerator*	Max load of accelerator per RTS qt	Pot-Life
Spraying	Without Accelerator		8 hours
	287437SP/08	1.5 oz	2 hours
	MAP-LVA117/04	.5 oz	45 min
	47117SP/08	1 oz	1 hour
	287484SP/08	.5 oz	1 hour
Brush and Roll	Accelerator is Not Recommended when brushing or rolling		8 hours

\*Times listed in the chart above are for a full load of accelerator. Refer to MPC218 for optional accelerators and amounts.

**Additives:**



None required, but the following may be used for specific application or project needs:

- 287112SP/04 Medium Suede Additive
- 287113SP/04 Suede Additive
- 287103SP/01 Low VOC Basecoat Converter
- 47444SP/04 Brush/Roller Additive\*
- 287750SP/01 Exempt Flattening Paste
- 47474SP/04 Flex Additive\*

\*47444SP/04 Brush/Roller Additive and 47474SP/04 Flex Additive can be used in areas with 3.5 VOC regulations

# SV208SP/01

## Directions for Use

### Spray Set Up:



Air Pressure: Conventional: 40 - 50 psi at the gun\*  
 HVLP: 10 psi at the cap\*  
 \* Refer to spray gun manufacturer recommendations for inlet pressure.



Pressure Pot Fluid Delivery: 8 - 12 Fluid Ounces per Minute



Gun Set Up: Siphon Feed: 1.2 - 1.4 mm 0.047 - 0.055 fluid tip  
 HVLP: 1.2 - 1.4 mm 0.047 - 0.055 fluid tip  
 Pressure Pot: 1.0 - 1.2 mm 0.039 - 0.047 fluid tip

### Application:



Apply: Apply two full wet coats, allowing proper flash time\* between coats. Apply additional coats as necessary to achieve total dry film thickness.  
 \*Flash times will vary dependent upon film thickness, temperature, solvent selection, spray gun set-up, application, etc.

Recommended Film Thickness:	Wet Film Thickness (WFT)	Per Coat	Total
		3 - 4 mils	6 - 8 mils
	Dry Film Thickness (DFT)	1 mils	2 mils

**Caution:** All 2-component crosslinking slows significantly at temperatures below 60°F or 16°C. Never spray or subject freshly painted coatings to these conditions or loss of gloss, decreased durability and improper curing can occur.

### Estimated Drying Times:



Air-Dry @ 50% Relative Humidity, 70°F/21°C  
 SV208SP/01 (mixed 3:1:1 with catalyst and reducer)

Accelerator*	Dust Free	Set to Touch	Dry to Handle	Tape Time	Vinyl Application (2-3 mils)	Reflective Metallic Vinyl Application
Without Accelerator	15 minutes	30 min-1 hour	1.5-2 hours	16 hours	48 hours	96 hours
287437SP/08	15 minutes	30-45 minutes	1-1.5 hours	1 hour	24 hours	48 hours
MAP-LVA117/04	15 minutes	30-45 minutes	1-1.5 hours	45 minutes	24 hours	48 hours
47117SP/08	15 minutes	30-45 minutes	45 min-1 hour	45 minutes	24 hours	48 hours
287484SP/08	15 minutes	30-45 minutes	45 min-1 hour	2 hours	8 hours	24 hours

\*Times listed in the chart above are for a full load of accelerator. Refer to MPC218 for optional accelerators and amounts.

**Recoating:** Paint films cured over 24 hours should be cleaned, lightly dry scuff sanded with 320 – 400g by hand/machine or wet sanded with 600g, then cleaned again before recoating.

**Force Dry:** Allow 30 minute purge before baking to prevent solvent popping. Bake for 40 minutes at 140°.

### Equipment Cleaning:

Clean equipment promptly with lacquer thinner or equivalent cleaning solvent.

**Note: Do not leave mixed material in equipment.**

# SV208SP/01

**Acrylic Polyurethane  
SVOC High Gloss Clear**

## Technical Data:

### 3.5 VOC Information

VOC Actual RTS	1.73 - 3.12 lbs/gal
VOC Actual RTS	207 - 373 g/L
VOC Regulatory (less water less exempt) RTS	2.95 - 3.52 lbs/gal
VOC Regulatory (less water less exempt) RTS	353 - 421 g/L

**Important:** to maintain 3.5 VOC compliance when using accelerators, use no more than .5oz per RTS qt of the following accelerators: 287 437SP, MAP-LVA117, 47117SP, or 287484SP.

### 2.8 VOC Information

VOC Actual RTS	1.09 - 1.28 lbs/gal
VOC Actual RTS	130 - 153 g/L
VOC Regulatory (less water less exempt) RTS	2.24 - 2.8 lbs/gal
VOC Regulatory (less water less exempt) RTS	268 - 331 g/L

**Important:** to maintain 2.8 VOC compliance, use only MAP-LVA117 accelerator.

For complete VOC information, visit [MatthewsPaint.com](http://MatthewsPaint.com) > Quick Links > VOC Data

### Performance Characteristics

Volume solids (RTS)	29% - 33%
Theoretical Coverage (1 mil @ 100% transfer efficiency)	470 - 542 sq.ft./RTS gal
Application Conditions - Temperature	60°F (16°C) Minimum 100°F (38°C) Maximum
Application Conditions - Relative Humidity	85% maximum 5° above dew point

**Important:** The contents of this package may have to be blended with other components before the product can be used. Before opening the packages, be sure you understand the warning messages on the labels of all components, since the mixture will have the hazards of all its parts. Improper spray technique may result in a hazardous condition. Follow spray equipment manufacturer's instructions to prevent personal injury or fire. Follow directions for respirator use. Wear eye and skin protection. Observe all applicable precautions.

**See Safety Data Sheet and Labels for additional safety information and handling instructions.**

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**Acrylic Polyurethane SVOC Satin Clear**

# SV228SP/01

SV228SP/01 VOC Satin Clear is a two-component, 2.8 or 3.5 VOC acrylic polyurethane with a natural satin finish. It is produced from the same technology that makes our colors unparalleled in their resistance to the elements.

SV228SP/01 is formulated with a UV screening package that ensures protection of the color and substrate underneath.

SV228SP/01 is designed for topcoat applications to protect color-coated signage components and vinyl graphics or to highlight architectural metals.



**Features:**

**Benefits:**

Satin-in-the-can .....	No additional flattening agent needed; Consistent gloss and finish; Less time to mix
Air-dry or force-dry capable.....	Fits most shop conditions
Excellent UV resistance .....	Excellent color and gloss retention; Extended life cycle; Reduced maintenance costs
2K Acrylic polyurethane .....	Resistance to weathering; Resistance to chalking; Long-term durability
Brush and roll capability .....	For use in areas where air spraying is prohibited
Low VOC technology .....	Environmentally friendly; Complies with VOC requirements

**Compatible Surfaces:**

**SV228SP/01 may be applied over properly prepared:**

- MAP Acrylic Polyurethane
- Satin MAP Acrylic Polyurethane
- Low VOC Satin Acrylic Polyurethane
- 74777SP/01 Tie Bond
- 274777SP/01 Low VOC Tie Bond
- 274793SP/01 Low VOC Spray Bond

**Associated Products:**

**Catalyst**

- 283320SP/01\* Satin VOC Catalyst
- \*Also available in /04

**3.5 VOC Reducer**

- 6300SP/01 Cool temperature, 60 - 75°F (16 - 24°C)
- 6301SP/01 Warm temperature, 70 - 85°F (21 - 29°C)
- 6302SP/01 Hot temperature, 80°F (27°C) & above

**2.8 VOC Reducer**

- 6370SP/01 Cool temperature, 60 - 75°F (16 - 24°C)
- 6371SP/01 Warm temperature, 70 - 85°F (21 - 29°C)
- 6372SP/01 Hot temperature, 80°F (27°C) & above

**Accelerator**

- 287437SP/08 HS Accelerator
- 47117SPMAP/04 Accelerator
- 287484SP/08 HS Turbo Enhancer
- MAP-LVA117/08 Ultra Low VOC Accelerator

# SV228SP/01

## Directions for Use

**Surface Preparation:** Substrate should be prepared according to Matthews Substrate Preparation Guide prior to topcoat application.

**Mix Ratio:**



Mix Ratio for Spraying (by volume)

SV228SP/01	283320SP/01 or /04	Reducer*	with Accelerator
3 parts	1 part	1 part	Optional**

\*Choose VOC MAP reducer

**3.5 VOC Reducer**

- 6300SP/01 Cool temperature, 60 - 75°F (16 - 24°C)
- 6301SP/01 Warm temperature, 70 - 85°F (21 - 29°C)
- 6302SP/01 Hot temperature, 80°F (27°C) & above

**2.8 VOC Reducer**

- 6370SP/01 Cool temperature, 60 - 75°F (16 - 24°C)
- 6371SP/01 Warm temperature, 70 - 85°F (21 - 29°C)
- 6372SP/01 Hot temperature, 80°F (27°C) & above
- NOTE: Larger jobs may require a hotter temperature reducer.

\*\*Refer to MPC218 for optional accelerators and amounts.

- For Brushing and Rolling, refer to Technical Data Sheet MPC159.
- All components should be mixed thoroughly before using
- Strain material after mixing



**Pot Life:** Pot-life is the amount of time before spray viscosity doubles. These are estimates based on lab results at 50% relative humidity, 70°F/21°C—results will vary based on application conditions, reducer selection, and accelerator choice.

Note: mix no more product than can be used within time limits listed below:

Application Method	Accelerator*	Max load of accelerator per RTS qt	Pot-Life
Spraying	Without Accelerator		8 hours
	287437SP/08	1.5 oz	2 hours
	MAP-LVA117/04	.5 oz	45 min
	47117SP/08	1 oz	1 hour
	287484SP/08	.5 oz	1 hour
Brush and Roll	Accelerator is Not Recommended when brushing or rolling		8 hours

\*Times listed in the chart above are for a full load of accelerator. Refer to MPC218 for optional accelerators and amounts.

**Additives:**



None required, but the following may be used for specific application or project needs:

- 287112SP/04 Medium Suede Additive
- 287113SP/04 Suede Additive
- 287103SP/01 Low VOC Basecoat Converter
- 47444SP/04 Brush/Roller Additive\*
- 287750SP/01 Exempt Flattening Paste
- 47474SP/04 Flex Additive\*

\*47444SP/04 Brush/Roller Additive and 47474SP/04 Flex Additive can be used in areas with 3.5 VOC regulations

# SV228SP/01

## Directions for Use

### Spray Set Up:



Air Pressure: Conventional: 40 - 50 psi at the gun\*  
 HVLP: 10 psi at the cap\*  
 \* Refer to spray gun manufacturer recommendations for inlet pressure.



Pressure Pot Fluid Delivery: 8 - 12 Fluid Ounces per Minute



Gun Set Up: Siphon Feed: 1.2 - 1.4 mm 0.047 - 0.055 fluid tip  
 HVLP: 1.2 - 1.4 mm 0.047 - 0.055 fluid tip  
 Pressure Pot: 1.0 - 1.2 mm 0.039 - 0.047 fluid tip

### Application:



Apply: Apply two full wet coats, allowing proper flash time\* between coats. Apply additional coats as necessary to achieve total dry film thickness.  
 \*Flash times will vary dependent upon film thickness, temperature, solvent selection, spray gun set-up, application, etc.

Recommended Film Thickness:	Wet Film Thickness (WFT)	Per Coat	Total
		3 - 4 mils	6 - 8 mils
	Dry Film Thickness (DFT)	1 mils	2 mils

**Caution:** All 2-component crosslinking slows significantly at temperatures below 60°F or 16°C. Never spray or subject freshly painted coatings to these conditions or loss of gloss, decreased durability and improper curing can occur.

### Estimated Drying Times:



Air-Dry @ 50% Relative Humidity, 70°F/21°C  
 SV228SP/01 (mixed 3:1:1 with catalyst and reducer)

Accelerator*	Dust Free	Set to Touch	Dry to Handle	Tape Time	Vinyl Application (2-3 mils)	Reflective Metallic Vinyl Application
Without Accelerator	15 minutes	30 min-1 hour	1.5-2 hours	16 hours	48 hours	96 hours
287437SP/08	15 minutes	30-45 minutes	1-1.5 hours	1 hour	24 hours	48 hours
MAP-LVA117/04	15 minutes	30-45 minutes	1-1.5 hours	45 minutes	24 hours	48 hours
47117SP/08	15 minutes	30-45 minutes	45 min-1 hour	45 minutes	24 hours	48 hours
287484SP/08	15 minutes	30-45 minutes	45 min-1 hour	2 hours	8 hours	24 hours

\*Times listed in the chart above are for a full load of accelerator. Refer to MPC218 for optional accelerators and amounts.

**Recoating:** Paint films cured over 24 hours should be cleaned, lightly dry scuff sanded with 320 – 400g by hand/machine or wet sanded with 600g, then cleaned again before recoating.

**Force Dry:** Allow 30 minute purge before baking to prevent solvent popping. Bake for 40 minutes at 140°.

### Equipment Cleaning:

Clean equipment promptly with lacquer thinner or equivalent cleaning solvent.  
**Note: Do not leave mixed material in equipment.**

# SV228SP/01

Acrylic  
Polyurethane  
SVOC Satin Clear

## Technical Data:

### 3.5 VOC Information

VOC Actual RTS	1.73 - 3.12 lbs/gal
VOC Actual RTS	207 - 373 g/L
VOC Regulatory (less water less exempt) RTS	2.95 - 3.52 lbs/gal
VOC Regulatory (less water less exempt) RTS	353 - 421 g/L

**Important:** to maintain 3.5 VOC compliance when using accelerators, use no more than .5oz per RTS qt of the following accelerators: 287 437SP, MAP-LVA117, 47117SP, or 287484SP.

### 2.8 VOC Information

VOC Actual RTS	1.09 - 1.28 lbs/gal
VOC Actual RTS	130 - 153 g/L
VOC Regulatory (less water less exempt) RTS	2.24 - 2.8 lbs/gal
VOC Regulatory (less water less exempt) RTS	268 - 331 g/L

**Important:** to maintain 2.8 VOC compliance, use only MAP-LVA117 accelerator.

For complete VOC information, visit [MatthewsPaint.com](http://MatthewsPaint.com) > Quick Links > VOC Data

### Performance Characteristics

Volume solids (RTS)	29% - 33%
Theoretical Coverage (1 mil @ 100% transfer efficiency)	470 - 542 sq.ft./RTS gal
Application Conditions - Temperature	60°F (16°C) Minimum 100°F (38°C) Maximum
Application Conditions - Relative Humidity	85% maximum 5° above dew point

**Important:** The contents of this package may have to be blended with other components before the product can be used. Before opening the packages, be sure you understand the warning messages on the labels of all components, since the mixture will have the hazards of all its parts. Improper spray technique may result in a hazardous condition. Follow spray equipment manufacturer's instructions to prevent personal injury or fire. Follow directions for respirator use. Wear eye and skin protection. Observe all applicable precautions.

**See Safety Data Sheet and Labels for additional safety information and handling instructions.**

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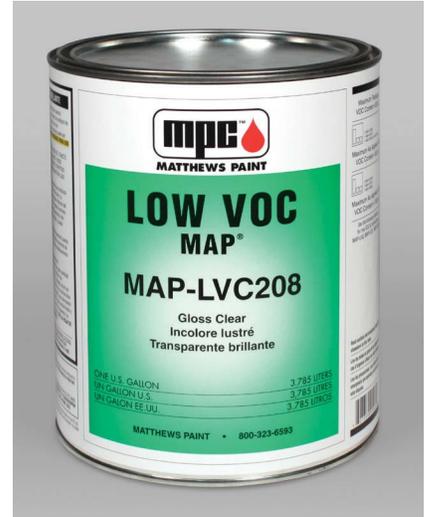
**Acrylic Polyurethane Ultra Low VOC Gloss Clear**

# MAP-LVC208/01

Matthews Acrylic Polyurethane Ultra Low VOC MAP-LVC208/01 Gloss Clear is produced from the technology that makes our colors unparalleled in their resistance to the elements.

MAP-LVC208/01 Ultra Low VOC Gloss Clear is formulated with UV agents that ensure excellent gloss retention and protection of the color and substrate underneath.

MAP-LVC208/01 Ultra Low VOC Gloss Clear is designed to protect color coated signage components, vinyl graphics and to highlight architectural metals.



**Features:**

**Benefits:**

- Durable yet flexible film .....Impact and mar resistant
- Durable gloss finish .....Adds depth and appearance
- Air-dry or force-dry capable .....Fits most shop conditions
- Excellent UV resistance .....Excellent color and gloss retention; Extended life cycle; Reduced maintenance costs
- 2K Acrylic polyurethane .....Resistance to weathering; Resistance to chalking, Long-term durability
- Ultra low VOC technology .....Environmentally friendly; Complies with most stringent VOC requirements; High solids
- Brush and roll capability .....For use in areas where air spraying is prohibited

**Compatible Surfaces:**

MAP-LVC208/01 Acrylic Polyurethane Ultra Low VOC Gloss Clear may be applied over properly prepared:

- MAP®
- Satin MAP®
- Satin VOC MAP®
- MAP-LVG Acrylic Polyurethane
- MAP-LVS Acrylic Polyurethane
- 74777SP/01 Tie Bond Adhesive
- 274777SP/01 Tie Bond Adhesive
- 274793SP/01 Spray Bond Adhesive

**Associated Products:**

Catalyst	Reducer	Accelerator
MAP-LVX270/01* Catalyst	MAP-LVRS01/01* Cool Temp. Spray Reducer	287437SP/08 HS Accelerator
*Also available in /04	MAP-LVRS02/01 Warm Temp. Spray Reducer w/ Extender	MAP-LVA117/08 Ultra Low VOC Accelerator
	MAP-LVRS03/01 Hot Temperature Spray Reducer w/ Extender 80° & Above	47117SP/04 MAP Accelerator
	MAP-LVRB51/01* Brush and Roll Reducer	

# MAP-LVC208/01

## Directions for Use

**Surface Preparation:** Substrate should be prepared according to Matthews Substrate Preparation Guide prior to topcoat application.

**Mix Ratio:**



Mix Ratio for Spraying (by volume)

MAP-LVC208/01 LVX270/01\* LVRS0x\*\* with Accelerator\*\*\*

3 parts 1 part 1 part Up to 1oz/RTS quart

- MAP-LVRS01/01\* Cool Temp. Spray Reducer
- MAP-LVRS02/01 Warm Temp. Spray Reducer with Extender
- MAP-LVRS03/01 Hot Temperature Spray Reducer with Extender 80° & Above
- NOTE: Larger jobs may require a hotter temperature reducer.
- For Brushing and Rolling, refer to Technical Data Sheet MPC193.
- All components should be mixed thoroughly before using
- Strain material after mixing

\*Also available in /04

\*\*Choose MAP reducer

\*\*\*Caution: use of accelerator with LVRS01/01\* is Not Recommended as it will drastically shorten pot life.



**Pot Life:** Pot-life is the amount of time before spray viscosity doubles. These are estimates based on lab results at 50% relative humidity, 70°F/21°C—results will vary based on application conditions, reducer selection, and accelerator choice.

Note: mix no more product than can be used within time limits listed below:

Application Method	Reducer	Accelerator*	Max load of accelerator per RTS qt	Pot-Life
Spraying	MAP-LVRS01/01*	Accelerator is Not Recommended when using MAP-LVRS01/01* reducer		1 hour
	MAP-LVRS02/01 or MAP-LVRS03/01	287437SP/08	1/2 oz	1.5 hours
		MAP-LVA117/08	1/2 oz	1 hour
		47117SP/04	1/2 oz	1 hour
Brush and Roll	LVRB51/01*	Accelerator is Not Recommended when brushing or rolling		1 hour

Times listed in the chart above are for a full load of accelerator.

\*Also available in /04

**Additives:**



None required, but the following may be used for specific application or project needs:

- 287112SP/04 Medium Suede Additive
- 287113SP/04 Coarse Suede Additive

**Spray Set Up:**



Air Pressure: Conventional: 40 - 50 psi at the gun\*

HVLP: 10 psi at the cap\*

\* Refer to spray gun manufacturer recommendations for inlet pressure.



Pressure Pot Fluid Delivery: 8 - 12 Fluid Ounces per Minute



Gun Set Up: Siphon Feed: 1.2 - 1.4 mm 0.047 - 0.055 fluid tip

HVLP: 1.2 - 1.4 mm 0.047 - 0.055 fluid tip

Pressure Pot: 1.0 - 1.2 mm 0.039 - 0.047 fluid tip

# MAP-LVC208/01

## Directions for Use

### Application:



Apply: Apply two full wet coats, allowing proper flash time\* between coats. Apply additional coats as necessary to achieve total dry film thickness. \*Flash times will vary dependent upon film thickness, temperature, solvent selection, spray gun set-up, application, etc.

Recommended Film Thickness:	Wet Film Thickness (WFT)	Per Coat	Total
	2 - 3 mils	2 - 3 mils	4 - 6 mils
	Dry Film Thickness (DFT)	1 mils	2 mils

**Caution:** All 2-component crosslinking slows significantly at temperatures below 60°F or 16°C. Never spray or subject freshly painted coatings to these conditions or loss of gloss, decreased durability and improper curing can occur.

### Estimated Drying Times:



Air-Dry @ 50% Relative Humidity, 70°F/21°C  
LVC208/01 (Mixed 3:1:1 with LVX270/01\* and Reducer)

Reducer	Accelerator*	Dust Free	Set to Touch	Dry to Handle	Tape Time	Vinyl Application (2-3 mils)	Reflective Metallic Vinyl Application
MAP-LVRS01/01*	Not recommended	10-15 minutes	25-35 minutes	45-60 minutes	1-2 hours	8-11 hours	16-22 hours
MAP-LVRS02/01 or MAP-LVRS03/01	287437SP/08	10-15 minutes	15-20 minutes	25-40 minutes	1-1½ hours	7-10 hours	12-16 hours
	MAP-LVA117/08	10-15 minutes	15-20 minutes	25-40 minutes	1-1½ hours	7-10 hours	12-16 hours
	47117SP/04	10-15 minutes	15-20 minutes	25-40 minutes	1-1½ hours	7-10 hours	12-16 hours

Times listed in the chart above are for a full load of accelerator.

\*Also available in /04

**Recoating:** Paint films cured over 24 hours should be cleaned, lightly dry scuff sanded with 320 – 400g by hand/machine or wet sanded with 600g, then cleaned again before recoating.

**Force Dry:** Allow 30 minute purge before baking to prevent solvent popping. Bake for 40 minutes at 140°.

### Equipment Cleaning:

Clean equipment promptly with any low VOC all-purpose cleaning solvent. Acetone should be used for cleanup in environmentally regulated areas.

**Note: Do not leave mixed material in equipment.**

### Technical Data:

#### VOC Information

VOC Actual RTS	0.18 – 1.85 lbs/gal
VOC Actual RTS	22 – 221 g/L
VOC Regulatory (less water less exempt) RTS	0.36 – 2.30 lbs/gal
VOC Regulatory (less water less exempt) RTS	43 – 276 g/L

For complete VOC information, visit [MatthewsPaint.com](http://MatthewsPaint.com) > Quick Links > VOC Data

#### Performance Characteristics

Volume solids (RTS)	45.28% - 54.88%
Theoretical Coverage (1 mil @ 100% transfer efficiency)	727 - 761 sq.ft./RTS gal
Application Conditions - Temperature	60°F (16°C) Minimum 100°F (38°C) Maximum
Application Conditions - Relative Humidity	85% maximum 5° above dew point

# MAP-LVC208/01

## Acrylic Polyurethane Ultra Low VOC Gloss Clear

**Important:** The contents of this package may have to be blended with other components before the product can be used. Before opening the packages, be sure you understand the warning messages on the labels of all components, since the mixture will have the hazards of all its parts. Improper spray technique may result in a hazardous condition. Follow spray equipment manufacturer's instructions to prevent personal injury or fire. Follow directions for respirator use. Wear eye and skin protection. Observe all applicable precautions.

**See Safety Data Sheet and Labels for additional safety information and handling instructions.**

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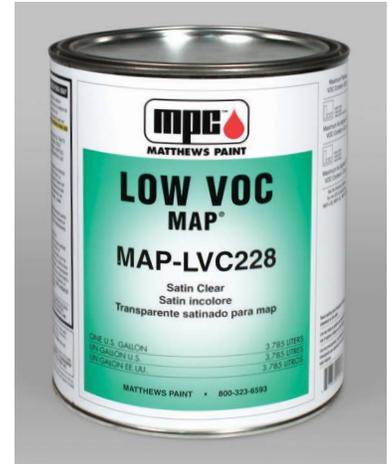
**Acrylic Polyurethane Ultra Low VOC Satin Clear**

# MAP-LVC228/01

Matthews Acrylic Polyurethane Ultra Low VOC (MAP-LV®) MAP-LVC228/01 Satin Clear is produced from the technology that makes our colors unparalleled in their resistance to the elements.

MAP-LVC228/01 Ultra Low VOC Satin Clear is formulated with a UV screening package that ensures protection of the color and substrate underneath.

MAP-LVC228/01 Ultra Low VOC Satin Clear is designed for topcoat applications to protect color coated signage components, vinyl graphics and to highlight architectural metals.



**Features:**

**Benefits:**

- |                                    |  |
|------------------------------------|--|
| Durable yet flexible film .....    | Impact and mar resistant   |
| Satin-in-the-can.....              | No additional flattening agent needed, Consistent gloss and finish, Less time to mix |
| Air-dry or force-dry capable ..... | Fits most shop conditions  |
| Excellent UV resistance .....      | Excellent color and gloss retention; Extended life cycle; Reduced maintenance costs  |
| 2K Acrylic polyurethane.....       | Resistance to weathering; Resistance to chalking, Long-term durability               |
| Ultra low VOC technology .....     | Environmentally friendly; Complies with most stringent VOC requirements; High solids |
| Brush and roll capability.....     | For use in areas where air spraying is prohibited                                    |

**Compatible Surfaces:**

MAP-LVC228/01 Acrylic Polyurethane Ultra Low VOC Satin Clear may be applied over properly prepared:

- MAP®
- Satin MAP®
- Satin VOC MAP®
- MAP-LVG Acrylic Polyurethane
- MAP-LVS Acrylic Polyurethane
- 74777SP/01 Tie Bond Adhesive
- 274777SP/01 Tie Bond Adhesive
- 274793SP/01 Spray Bond Adhesive

**Associated Products:**

Catalyst	Reducer	Accelerator
MAP-LVX270/01* Catalyst	MAP-LVRS01/01* Cool Temp. Spray Reducer	287437SP/08 HS Accelerator
*Also available in /04	MAP-LVRS02/01 Warm Temp. Spray Reducer w/ Extender	MAP-LVA117/08 Ultra Low VOC Accelerator
	MAP-LVRS03/01 Hot Temperature Spray Reducer w/ Extender 80° & Above	47117SP/04 MAP Accelerator
	MAP-LVRB51/01* Brush and Roll Reducer	287484SP/08 HS Turbo Enhancer
		SM166A/04 Tape-It Accelerator

# MAP-LVC228/01

## Directions for Use

**Surface Preparation:** Substrate should be prepared according to Matthews Substrate Preparation Guide prior to topcoat application.

**Mix Ratio:**



Mix Ratio for Spraying (by volume)

MAP-LVC228/01 LVX270/01\* LVRS0x\*\* with Accelerator\*\*\*

3 parts                      1 part                      1 part                      Up to 1oz/RTS quart

- MAP-LVRS01/01\* Cool Temp. Spray Reducer
- MAP-LVRS02/01 Warm Temp. Spray Reducer with Extender
- MAP-LVRS03/01 Hot Temperature Spray Reducer with Extender 80° & Above
- NOTE: Larger jobs may require a hotter temperature reducer.
- For Brushing and Rolling, refer to Technical Data Sheet MPC193.
- All components should be mixed thoroughly before using
- Strain material after mixing

\*Also available in /04

\*\*Choose MAP reducer

\*\*\*Caution: use of accelerator with LVRS01/01\* is Not Recommended as it will drastically shorten pot life.



**Pot Life:** Pot-life is the amount of time before spray viscosity doubles. These are estimates based on lab results at 50% relative humidity, 70°F/21°C—results will vary based on application conditions, reducer selection, and accelerator choice.

Note: mix no more product than can be used within time limits listed below:

Application Method	Reducer	Accelerator*	Max load of accelerator per RTS qt	Pot-Life
Spraying	MAP-LVRS01/01*	Accelerator is Not Recommended when using MAP-LVRS01/01* reducer		4 hours
	MAP-LVRS02/01 or MAP-LVRS03/01	287437SP/08	1.5 oz	1.5 hours
		MAP-LVA117/08	1 oz	1 hour
		47117SP/04	1 oz	1 hour
		287484SP/08	½ oz – 1 oz	1 hour
	SM166A/04	¼ oz – 1 oz	30 minutes	
Brush and Roll	LVRB51/01*	Accelerator is Not Recommended when brushing or rolling		2 hours

Times listed in the chart above are for a full load of accelerator.

\*Also available in /04

**Additives:**



None required, but the following may be used for specific application or project needs:

- 287112SP/04 Medium Suede Additive
- 287113SP/04 Coarse Suede Additive

# MAP-LVC228/01

## Directions for Use

### Spray Set Up:



Air Pressure: Conventional: 40 - 50 psi at the gun\*  
 HVLP: 10 psi at the cap\*  
 \* Refer to spray gun manufacturer recommendations for inlet pressure.



Pressure Pot Fluid Delivery: 8 - 12 Fluid Ounces per Minute



Gun Set Up: Siphon Feed: 1.2 - 1.4 mm 0.047 - 0.055 fluid tip  
 HVLP: 1.2 - 1.4 mm 0.047 - 0.055 fluid tip  
 Pressure Pot: 1.0 - 1.2 mm 0.039 - 0.047 fluid tip

### Application:



Apply: Apply two full wet coats, allowing proper flash time\* between coats. Apply additional coats as necessary to achieve total dry film thickness.  
 \*Flash times will vary dependent upon film thickness, temperature, solvent selection, spray gun set-up, application, etc.

Recommended Film Thickness:	Wet Film Thickness (WFT)	Per Coat	Total
		2 - 3 mils	4 - 6 mils
	Dry Film Thickness (DFT)	1 mils	2 mils

**Caution:** All 2-component crosslinking slows significantly at temperatures below 60°F or 16°C. Never spray or subject freshly painted coatings to these conditions or loss of gloss, decreased durability and improper curing can occur.

### Estimated Drying Times:



Air-Dry @ 50% Relative Humidity, 70°F/21°C  
 LVC228/01 (Mixed 3:1:1 with LVX270/01\* and Reducer)

Reducer	Accelerator*	Dust Free	Set to Touch	Dry to Handle	Tape Time	Vinyl Application (2-3 mils)	Reflective Metallic Vinyl Application
MAP-LVRS01/01*	Not recommended	10-15 minutes	25-35 minutes	45-60 minutes	1-2 hours	8-11 hours	16-22 hours
MAP-LVRS02/01 or MAP-LVRS03/01	287437SP/08	10-15 minutes	15-20 minutes	25-45 minutes	1-1½ hours	7-10 hours	12-16 hours
	MAP-LVA117/08	10-15 minutes	15-20 minutes	25-45 minutes	1-1½ hours	7-10 hours	12-16 hours
	47117SP/04	10-15 minutes	15-20 minutes	25-45 minutes	1-1½ hours	7-10 hours	12-16 hours
	287484SP/08	10-15 minutes	15-20 minutes	25-40 minutes	45-60 minutes	5-7 hours	9-14 hours
	SM166A/04	10-15 minutes	15-20 minutes	25-35 minutes	45-60 minutes	4-7 hours	8-14 hours

Times listed in the chart above are for a full load of accelerator.

\*Also available in /04

**Recoating:** Paint films cured over 24 hours should be cleaned, lightly dry scuff sanded with 320 – 400g by hand/machine or wet sanded with 600g, then cleaned again before recoating.

**Force Dry:** Allow 30 minute purge before baking to prevent solvent popping. Bake for 40 minutes at 140°.

### Equipment Cleaning:

Clean equipment promptly with any low VOC all-purpose cleaning solvent. Acetone should be used for cleanup in environmentally regulated areas.

**Note: Do not leave mixed material in equipment.**

# MAP-LVC228/01

## Acrylic Polyurethane Ultra Low VOC Satin Clear

### Technical Data:

#### VOC Information

VOC Actual RTS	0.18 – 1.91 lbs/gal
VOC Actual RTS	22 – 229 g/L
VOC Regulatory (less water less exempt) RTS	0.38 – 2.34 lbs/gal
VOC Regulatory (less water less exempt) RTS	46 – 280 g/L

For complete VOC information, visit [MatthewsPaint.com](http://MatthewsPaint.com) > Quick Links > VOC Data

#### Performance Characteristics

Volume solids (RTS)	45.28% - 54.88%
Theoretical Coverage (1 mil @ 100% transfer efficiency)	727 - 761 sq.ft./RTS gal
Application Conditions - Temperature	60°F (16°C) Minimum 100°F (38°C) Maximum
Application Conditions - Relative Humidity	85% maximum 5° above dew point

### Important:

The contents of this package may have to be blended with other components before the product can be used. Before opening the packages, be sure you understand the warning messages on the labels of all components, since the mixture will have the hazards of all its parts. Improper spray technique may result in a hazardous condition. Follow spray equipment manufacturer's instructions to prevent personal injury or fire. Follow directions for respirator use. Wear eye and skin protection. Observe all applicable precautions.

**See Safety Data Sheet and Labels for additional safety information and handling instructions.**

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**Acrylic Polyurethane Ultra Low VOC Matte Clear**

# MAP-LVC238/01

Matthews Acrylic Polyurethane Ultra Low VOC (MAP-LV®) MAP-LVC238/01 Matte Clear is produced from the technology that makes our colors unparalleled in their resistance to the elements.

MAP-LVC238/01 Ultra Low VOC Matte Clear is formulated with a UV screening package that ensures protection of the color and substrate underneath.

MAP-LVC238/01 Ultra Low VOC Matte Clear is designed for topcoat applications to protect color coated signage components, vinyl graphics and to highlight architectural metals.



**Features:**

**Benefits:**

- |                                    |  |
|------------------------------------|--|
| Durable yet flexible film .....    | Impact and mar resistant   |
| Matte-in-the-can. ....             | No additional flattening agent needed, Consistent gloss and finish, Less time to mix |
| Air-dry or force-dry capable ..... | Fits most shop conditions  |
| Excellent UV resistance .....      | Excellent color and gloss retention; Extended life cycle; Reduced maintenance costs  |
| 2K Acrylic polyurethane.....       | Resistance to weathering; Resistance to chalking, Long-term durability               |
| Ultra low VOC technology .....     | Environmentally friendly; Complies with most stringent VOC requirements; High solids |
| Brush and roll capability.....     | For use in areas where air spraying is prohibited                                    |

**Compatible Surfaces:**

MAP-LVC238/01 Acrylic Polyurethane Ultra Low VOC Matte Clear may be applied over properly prepared:

- MAP®
- Satin MAP®
- Satin VOC MAP®
- MAP-LVG Acrylic Polyurethane
- MAP-LVS Acrylic Polyurethane
- 74777SP/01 Tie Bond Adhesive
- 274777SP/01 Tie Bond Adhesive
- 274793SP/01 Spray Bond Adhesive

**Associated Products:**

<b>Catalyst</b>	<b>Reducer</b>	<b>Accelerator</b>
MAP-LVX270/01* Catalyst	MAP-LVRS01/01* Cool Temp. Spray Reducer	287437SP/08 HS Accelerator
*Also available in /04	MAP-LVRS02/01 Warm Temp. Spray Reducer w/ Extender	MAP-LVA117/08 Ultra Low VOC Accelerator
	MAP-LVRS03/01 Hot Temperature Spray Reducer w/ Extender 80° & Above	47117SP/04 MAP Accelerator
	MAP-LVRB51/01* Brush and Roll Reducer	287484SP/08 HS Turbo Enhancer
		SM166A/04 Tape-It Accelerator

# MAP-LVC238/01

## Directions for Use

**Surface Preparation:** Substrate should be prepared according to Matthews Substrate Preparation Guide prior to topcoat application.

**Mix Ratio:**



Mix Ratio for Spraying (by volume)

MAP-LVC238/01 LVX270/01\* LVRS0x\*\* with Accelerator\*\*\*

3 parts                      1 part                      1 part                      Up to 1oz/RTS quart

- MAP-LVRS01/01\* Cool Temp. Spray Reducer
- MAP-LVRS02/01 Warm Temp. Spray Reducer with Extender
- MAP-LVRS03/01 Hot Temperature Spray Reducer with Extender 80° & Above
- NOTE: Larger jobs may require a hotter temperature reducer.
- For Brushing and Rolling, refer to Technical Data Sheet MPC193.
- All components should be mixed thoroughly before using
- Strain material after mixing

\*Also available in /04

\*\*Choose MAP reducer

\*\*\*Caution: use of accelerator with LVRS01/01\* is Not Recommended as it will drastically shorten pot life.



**Pot Life:** Pot-life is the amount of time before spray viscosity doubles. These are estimates based on lab results at 50% relative humidity, 70°F/21°C—results will vary based on application conditions, reducer selection, and accelerator choice.

Note: mix no more product than can be used within time limits listed below:

Application Method	Reducer	Accelerator*	Max load of accelerator per RTS qt	Pot-Life
Spraying	MAP-LVRS01/01*	Accelerator is Not Recommended when using MAP-LVRS01/01* reducer		4 hours
	MAP-LVRS02/01 or MAP-LVRS03/01	287437SP/08	1.5 oz	1.5 hours
		MAP-LVA117/08	1 oz	1 hour
		47117SP/04	1 oz	1 hour
		287484SP/08	½ oz – 1 oz	1 hour
	SM166A/04	¼ oz – 1 oz	30 minutes	
Brush and Roll	LVRB51/01*	Accelerator is Not Recommended when brushing or rolling		2 hours

Times listed in the chart above are for a full load of accelerator.

\*Also available in /04

**Additives:**



None required, but the following may be used for specific application or project needs:

- 287112SP/04 Medium Suede Additive
- 287113SP/04 Coarse Suede Additive

# MAP-LVC238/01

## Directions for Use

### Spray Set Up:



Air Pressure: Conventional: 40 - 50 psi at the gun\*  
 HVLP: 10 psi at the cap\*  
 \* Refer to spray gun manufacturer recommendations for inlet pressure.



Pressure Pot Fluid Delivery: 8 - 12 Fluid Ounces per Minute



Gun Set Up: Siphon Feed: 1.2 - 1.4 mm 0.047 - 0.055 fluid tip  
 HVLP: 1.2 - 1.4 mm 0.047 - 0.055 fluid tip  
 Pressure Pot: 1.0 - 1.2 mm 0.039 - 0.047 fluid tip

### Application:



Apply: Apply two full wet coats, allowing proper flash time\* between coats. Apply additional coats as necessary to achieve total dry film thickness.  
 \*Flash times will vary dependent upon film thickness, temperature, solvent selection, spray gun set-up, application, etc.

Recommended Film Thickness:	Wet Film Thickness (WFT)	Per Coat	Total
		2 - 3 mils	4 - 6 mils
	Dry Film Thickness (DFT)	1 mils	2 mils

**Caution:** All 2-component crosslinking slows significantly at temperatures below 60°F or 16°C. Never spray or subject freshly painted coatings to these conditions or loss of gloss, decreased durability and improper curing can occur.

### Estimated Drying Times:



Air-Dry @ 50% Relative Humidity, 70°F/21°C  
 LVC238/01 (Mixed 3:1:1 with LVX270/01\* and Reducer)

Reducer	Accelerator*	Dust Free	Set to Touch	Dry to Handle	Tape Time	Vinyl Application (2-3 mils)	Reflective Metallic Vinyl Application
MAP-LVRS01/01*	Not recommended	10-15 minutes	25-35 minutes	45-60 minutes	1-2 hours	8-11 hours	16-22 hours
MAP-LVRS02/01 or MAP-LVRS03/01	287437SP/08	10-15 minutes	15-20 minutes	25-45 minutes	1-1½ hours	7-10 hours	12-16 hours
	MAP-LVA117/08	10-15 minutes	15-20 minutes	25-45 minutes	1-1½ hours	7-10 hours	12-16 hours
	47117SP/04	10-15 minutes	15-20 minutes	25-45 minutes	1-1½ hours	7-10 hours	12-16 hours
	287484SP/08	10-15 minutes	15-20 minutes	25-40 minutes	45-60 minutes	5-7 hours	9-14 hours
	SM166A/04	10-15 minutes	15-20 minutes	25-35 minutes	45-60 minutes	4-7 hours	8-14 hours

Times listed in the chart above are for a full load of accelerator.

\*Also available in /04

**Recoating:** Paint films cured over 24 hours should be cleaned, lightly dry scuff sanded with 320 – 400g by hand/machine or wet sanded with 600g, then cleaned again before recoating.

**Force Dry:** Allow 30 minute purge before baking to prevent solvent popping. Bake for 40 minutes at 140°.

### Equipment Cleaning:

Clean equipment promptly with any low VOC all-purpose cleaning solvent. Acetone should be used for cleanup in environmentally regulated areas.

**Note: Do not leave mixed material in equipment.**

# MAP-LVC238/01

## Acrylic Polyurethane Ultra Low VOC Matte Clear

### Technical Data:

#### VOC Information

VOC Actual RTS	0.18 – 1.91 lbs/gal
VOC Actual RTS	22 – 229 g/L
VOC Regulatory (less water less exempt) RTS	0.38 – 2.34 lbs/gal
VOC Regulatory (less water less exempt) RTS	46 – 280 g/L

For complete VOC information, visit [MatthewsPaint.com](http://MatthewsPaint.com) > Quick Links > VOC Data

#### Performance Characteristics

Volume solids (RTS)	45.28% - 54.88%
Theoretical Coverage (1 mil @ 100% transfer efficiency)	727 - 761 sq.ft./RTS gal
Application Conditions - Temperature	60°F (16°C) Minimum 100°F (38°C) Maximum
Application Conditions - Relative Humidity	85% maximum 5° above dew point

### Important:

The contents of this package may have to be blended with other components before the product can be used. Before opening the packages, be sure you understand the warning messages on the labels of all components, since the mixture will have the hazards of all its parts. Improper spray technique may result in a hazardous condition. Follow spray equipment manufacturer's instructions to prevent personal injury or fire. Follow directions for respirator use. Wear eye and skin protection. Observe all applicable precautions.

**See Safety Data Sheet and Labels for additional safety information and handling instructions.**

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**Matthews ADA Clear**

# SOA4158SP/01

Matthews Acrylic Polyurethane (MAP®)  
 SOA4158SP/01 ADA Clear is produced from the same technology which makes our colors unparalleled in their resistance to the elements.  
 SOA4158SP/01 ADA Clear is formulated with a UV screening package that ensures excellent protection of the color and substrate underneath.  
 SOA4158SP/01 ADA Clear is for use where ADA (American Disabilities Act) compliance is mandated.



**Features:**

**Benefits:**

Satin gloss-in-the-can.....	No additional flattening agent needed; Consistent gloss and finish; Less time to mix
Air-dry or force-dry capable.....	Fits most shop conditions
Excellent UV resistance .....	Excellent color and gloss retention; Extended life cycle; Reduced maintenance costs
2K Acrylic polyurethane .....	Resistance to weathering; Resistance to chalking; Long-term durability
Brush and roll capability .....	For use in areas where air spraying is prohibited
Graffiti Resistant .....	Most chemical graffiti can be removed with an appropriate solvent once finish is fully cured
ADA approved .....	Meets ADA requirements for gloss and appearance

**Compatible Surfaces:**

**SOA4158SP/01 ADA Clear may be applied over properly prepared:**

MAP Acrylic Polyurethane	74777SP/01 Tie Bond
Satin MAP Acrylic Polyurethane	274777SP/01 Low VOC Tie Bond
Low VOC Satin Acrylic Polyurethane	274793SP/01 Low VOC Spray Bond

**Associated Products:**

**Catalyst**

43270SP/01\* Universal Catalyst  
 43621SP/04 Brushing Catalyst  
 (For brush or roller application)  
 43999SP/01 Slow Catalyst  
 (For hot weather, bake application or for very large substrates)

\*Also available in /04

**Reducer**

6379SP/01 Cool temperature, 60 - 75°F (16 - 24°C)  
 45280SP/01 Warm temperature, 70 - 80°F (21 - 27°C)  
 45290SP/01 Very warm temperature, 75 - 85°F (24 - 29°C)  
 6396SP/01 Hot temperature, 80°F (27°C) & above  
 45251SP/01 Retarder, to be blended up to 50% with reducer. Not to be used by itself.

**Accelerator**

287437SP/08 HS Accelerator  
 47117SP/04 MAP Accelerator  
 287484SP/08 HS Turbo Enhancer  
 MAP-LVA117/08 Ultra Low VOC Accelerator

# SOA4158SP/01

## Directions for Use

**Surface Preparation:** Substrate should be prepared according to Matthews Substrate Preparation Guide prior to topcoat application.

**Mix Ratio:**



Mix Ratio for Spraying (by volume)

SOA4158SP/01	43270SP/01 or /04, 43999SP/01	Reducer*	with Accelerator
3 parts	1 part	1 part	Optional**

\*Choose MAP reducer

- 6379SP/01 Cool temperature, 60 - 75°F (16 - 24°C)
- 45280SP/01 Warm temperature, 70 - 80°F (21 - 27°C)
- 45290SP/01 Very warm temperature, 75 - 85°F (24 - 29°C)
- 6396SP/01 Hot temperature, 80°F (27°C) & above
- 45251SP/01 Retarder, to be blended up to 50% with reducer. Not to be used by itself.
- NOTE: Larger jobs may require a hotter temperature reducer.

\*\*Refer to MPC218 for optional accelerators and amounts.

- For Brushing and Rolling, refer to Technical Data Sheet MPC159.
- All components should be mixed thoroughly before using
- Strain material after mixing



**Pot Life:** Pot-life is the amount of time before spray viscosity doubles. These are estimates based on lab results at 50% relative humidity, 70°F/21°C—results will vary based on application conditions, reducer selection, and accelerator choice.

Note: mix no more product than can be used within time limits listed below:

Application Method	Accelerator*	Max load of accelerator per RTS qt	Pot-Life
Spraying	Without Accelerator		8 hours
	287437SP/08	1.5 oz	2 hours
	MAP-LVA117/08	1 oz	45 min
	47117SP/04	1 oz	1 hour
	287484SP/08	.5 oz	1 hour
Brush and Roll	Accelerator is Not Recommended when brushing or rolling		8 hours

\*Times listed in the chart above are for a full load of accelerator. Refer to MPC218 for optional accelerators and amounts.

**Additives:**



None required, but the following may be used for specific application or project needs:

- 47444SP/04 Brush/Roller Additive
- 47474SP/04 Flex Additive

# SOA4158SP/01

## Directions for Use

### Spray Set Up:



Air Pressure: Conventional: 40 - 50 psi at the gun\*  
 HVLP: 10 psi at the cap\*  
 \* Refer to spray gun manufacturer recommendations for inlet pressure.



Pressure Pot Fluid Delivery: 8 - 12 Fluid Ounces per Minute



Gun Set Up: Siphon Feed: 1.2 - 1.4 mm 0.047 - 0.055 fluid tip  
 HVLP: 1.2 - 1.4 mm 0.047 - 0.055 fluid tip  
 Pressure Pot: 1.0 - 1.2 mm 0.039 - 0.047 fluid tip

### Application:



Apply: Apply two full wet coats, allowing proper flash time\* between coats. Apply additional coats as necessary to achieve total dry film thickness and/or metallic control.

\*Flash times will vary dependent upon film thickness, temperature, solvent selection, spray gun set-up, application, etc.

Recommended Film Thickness:	Wet Film Thickness (WFT)	Per Coat	Total
		3 - 4 mils	6 - 8 mils
	Dry Film Thickness (DFT)	1 mils	2 mils

**Caution:** All 2-component crosslinking slows significantly at temperatures below 60°F or 16°C. Never spray or subject freshly painted coatings to these conditions or loss of gloss, decreased durability and improper curing can occur.

### Estimated Drying Times:



Air-Dry @ 50% Relative Humidity, 70°F/21°C  
 SOA4158SP/01 (mixed 3:1:1 with catalyst and reducer)

Accelerator*	Dust Free	Set to Touch	Dry to Handle	Tape Time	Vinyl Application (2-3 mils)	Reflective Metallic Vinyl Application
Without Accelerator	15 minutes	30 min-1 hour	1.5-2 hours	16 hours	48 hours	96 hours
287437SP/08	15 minutes	30-45 minutes	1-1.5 hours	1 hour	24 hours	48 hours
MAP-LVA117/08	15 minutes	30-45 minutes	1-1.5 hours	45 minutes	24 hours	48 hours
47117SP/04	15 minutes	30-45 minutes	45 min-1 hour	45 minutes	24 hours	48 hours
287484SP/08	15 minutes	30-45 minutes	45 min-1 hour	2 hours	8 hours	24 hours

\*Times listed in the chart above are for a full load of accelerator. Refer to MPC218 for optional accelerators and amounts.

**Recoating:** Paint films cured over 24 hours should be cleaned, lightly dry scuff sanded with 320 – 400g by hand/machine or wet sanded with 600g, then cleaned again before recoating.

**Force Dry:** Allow 30 minute purge before baking to prevent solvent popping. Bake for 40 minutes at 140°.

### Equipment Cleaning:

Clean equipment promptly with lacquer thinner or equivalent cleaning solvent.

**Note: Do not leave mixed material in equipment.**

# SOA4158SP/01

**Matthews  
ADA Clear**

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**Technical Data:****VOC Information**

VOC Actual RTS	4.74 - 5.35 lbs/gal
VOC Actual RTS	568 - 641 g/L
VOC Regulatory (less water less exempt) RTS	4.74 - 5.35 lbs/gal
VOC Regulatory (less water less exempt) RTS	568 - 641 g/L

For complete VOC information, visit [MatthewsPaint.com](http://MatthewsPaint.com) > Quick Links > VOC Data

**Performance Characteristics**

Volume solids (RTS)	28.93%
Theoretical Coverage (1 mil @ 100% transfer efficiency)	500 sq.ft./RTS gal
Application Conditions - Temperature	60°F (16°C) Minimum 100°F (38°C) Maximum
Application Conditions - Relative Humidity	85% maximum 5° above dew point

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**Important:**

The contents of this package may have to be blended with other components before the product can be used. Before opening the packages, be sure you understand the warning messages on the labels of all components, since the mixture will have the hazards of all its parts. Improper spray technique may result in a hazardous condition. Follow spray equipment manufacturer's instructions to prevent personal injury or fire. Follow directions for respirator use. Wear eye and skin protection. Observe all applicable precautions.

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**See Safety Data Sheet and Labels for additional safety information and handling instructions.**

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**Matthews Braco Gloss Clear**

# 42260SP/01

Matthews Acrylic Polyurethane (MAP®)  
 42260SP/01 Braco is a high gloss clear finish specifically developed for metals which tarnish, including brass, bronze or any copper\*.

42260SP/01 Braco Clear is formulated with UV agents that ensure excellent gloss retention and protection of the color and substrate underneath.

\*NOTE: 274793SP/01 Spray Bond must be applied first.



**Features:**

**Benefits:**

- Durable gloss finish .....Adds depth and appearance
- Air-dry or force-dry capable.....Fits most shop conditions
- Superior UV resistance.....Excellent color and gloss retention; Extended life cycle; Reduced maintenance costs
- Anti-tarnish.....Preserves original appearance of decorative metals; Prevents discoloration of polished metals
- Brush and roll capability .....For use in areas where air spraying is prohibited
- 2K Acrylic polyurethane .....Resistance to weathering, Resistance to chalking, Long-term durability

**Compatible Surfaces:**

42260SP/01 Braco Gloss Clear may be applied over properly prepared:

- Brass\*
- Bronze\*
- Copper\*
- 274793SP/01 Low VOC Spray Bond

\*NOTE: 274793SP/01 Spray Bond must be applied to Brass, Bronze, or Copper prior to clearcoating.

**Associated Products:**

**Catalyst**

- 43270SP/01\* Universal Catalyst
- 43621SP/04 Brushing Catalyst  
(For brush or roller application)
- 43999SP/01 Slow Catalyst  
(For hot weather, bake application or for very large substrates)

\*Also available in /04

**Reducer**

- 6379SP/01 Cool temperature, 60 - 75°F (16 - 24°C)
- 45280SP/01 Warm temperature, 70 - 80°F (21 - 27°C)
- 45290SP/01 Very warm temperature, 75 - 85°F (24 - 29°C)
- 6396SP/01 Hot temperature, 80°F (27°C) & above
- 45251SP/01 Retarder, to be blended up to 50% with reducer. Not to be used by itself.

**Accelerator**

- 287437SP/08 HS Accelerator
- 47117SP/04 MAP Accelerator
- 287484SP/08 HS Turbo Enhancer
- MAP-LVA117/08 Ultra Low VOC Accelerator

# 42260SP/01

## Directions for Use

**Surface Preparation:** Substrate should be prepared according to Matthews Substrate Preparation Guide prior to topcoat application.

**Mix Ratio:**



Mix Ratio for Spraying (by volume)

42260SP/01	43270SP/01 or /04, 43999SP/01	Reducer*	with Accelerator
3 parts	1 part	1 part	Optional**

\*Choose MAP reducer

- 6379SP/01 Cool temperature, 60 - 75°F (16 - 24°C)
- 45280SP/01 Warm temperature, 70 - 80°F (21 - 27°C)
- 45290SP/01 Very warm temperature, 75 - 85°F (24 - 29°C)
- 6396SP/01 Hot temperature, 80°F (27°C) & above
- 45251SP/01 Retarder, to be blended up to 50% with reducer. Not to be used by itself.
- NOTE: Larger jobs may require a hotter temperature reducer.

\*\*Refer to MPC218 for optional accelerators and amounts.

- For Brushing and Rolling, refer to Technical Data Sheet MPC159.
- All components should be mixed thoroughly before using
- Strain material after mixing



**Pot Life:** Pot-life is the amount of time before spray viscosity doubles. These are estimates based on lab results at 50% relative humidity, 70°F/21°C—results will vary based on application conditions, reducer selection, and accelerator choice.

Note: mix no more product than can be used within time limits listed below:

Application Method	Accelerator*	Max load of accelerator per RTS qt	Pot-Life
Spraying	Without Accelerator		8 hours
	287437SP/08	1.5 oz	2 hours
	MAP-LVA117/08	1 oz	45 min
	47117SP/04	1 oz	1 hour
	287484SP/08	.5 oz	1 hour
Brush and Roll	Accelerator is Not Recommended when brushing or rolling		8 hours

\*Times listed in the chart above are for a full load of accelerator. Refer to MPC218 for optional accelerators and amounts.

**Additives:**



None required, but the following may be used for specific application or project needs:

- 47444SP/04 Brush/Roller Additive

# 42260SP/01

## Directions for Use

### Spray Set Up:



Air Pressure: Conventional: 40 - 50 psi at the gun\*  
 HVLP: 10 psi at the cap\*  
 \* Refer to spray gun manufacturer recommendations for inlet pressure.



Pressure Pot Fluid Delivery: 8 - 12 Fluid Ounces per Minute



Gun Set Up: Siphon Feed: 1.2 - 1.4 mm 0.047 - 0.055 fluid tip  
 HVLP: 1.2 - 1.4 mm 0.047 - 0.055 fluid tip  
 Pressure Pot: 1.0 - 1.2 mm 0.039 - 0.047 fluid tip

### Application:



Apply: Apply two full wet coats, allowing proper flash time\* between coats. Apply additional coats as necessary to achieve total dry film thickness and/or metallic control.

\*Flash times will vary dependent upon film thickness, temperature, solvent selection, spray gun set-up, application, etc.

Recommended Film Thickness:	Wet Film Thickness (WFT)	Per Coat	Total
		3 - 4 mils	6 - 8 mils
	Dry Film Thickness (DFT)	1 mils	2 mils

**Caution:** All 2-component crosslinking slows significantly at temperatures below 60°F or 16°C. Never spray or subject freshly painted coatings to these conditions or loss of gloss, decreased durability and improper curing can occur.

### Estimated Drying Times:



Air-Dry @ 50% Relative Humidity, 70°F/21°C  
 42260SP/01 (mixed 3:1:1 with catalyst and reducer)

Accelerator*	Dust Free	Set to Touch	Dry to Handle	Tape Time	Vinyl Application (2-3 mils)	Reflective Metallic Vinyl Application
Without Accelerator	15 minutes	30 min-1 hour	1.5-2 hours	16 hours	48 hours	96 hours
287437SP/08	15 minutes	30-45 minutes	1-1.5 hours	1 hour	24 hours	48 hours
MAP-LVA117/08	15 minutes	30-45 minutes	1-1.5 hours	45 minutes	24 hours	48 hours
47117SP/04	15 minutes	30-45 minutes	45 min-1 hour	45 minutes	24 hours	48 hours
287484SP/08	15 minutes	30-45 minutes	45 min-1 hour	2 hours	8 hours	24 hours

\*Times listed in the chart above are for a full load of accelerator. Refer to MPC218 for optional accelerators and amounts.

**Recoating:** Paint films cured over 24 hours should be cleaned, lightly dry scuff sanded with 320 – 400g by hand/machine or wet sanded with 600g, then cleaned again before recoating.

**Force Dry:** Allow 30 minute purge before baking to prevent solvent popping. Bake for 40 minutes at 140°.

### Equipment Cleaning:

Clean equipment promptly with lacquer thinner or equivalent cleaning solvent.

**Note: Do not leave mixed material in equipment.**

# 42260SP/01

**Matthews Braco Gloss Clear**

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**Technical Data:**

**VOC Information**

VOC Actual RTS	4.91 - 5.51 lbs/gal
VOC Actual RTS	589 - 661 g/L
VOC Regulatory (less water less exempt) RTS	4.91 - 5.51 lbs/gal
VOC Regulatory (less water less exempt) RTS	589 - 661 g/L

For complete VOC information, visit [MatthewsPaint.com](http://MatthewsPaint.com) > Quick Links > VOC Data

**Performance Characteristics**

Volume solids (RTS)	26.49%
Theoretical Coverage (1 mil @ 100% transfer efficiency)	500 sq.ft./RTS gal
Application Conditions - Temperature	60°F (16°C) Minimum 100°F (38°C) Maximum
Application Conditions - Relative Humidity	85% maximum 5° above dew point

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**Important:**

The contents of this package may have to be blended with other components before the product can be used. Before opening the packages, be sure you understand the warning messages on the labels of all components, since the mixture will have the hazards of all its parts. Improper spray technique may result in a hazardous condition. Follow spray equipment manufacturer's instructions to prevent personal injury or fire. Follow directions for respirator use. Wear eye and skin protection. Observe all applicable precautions.

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**See Safety Data Sheet and Labels for additional safety information and handling instructions.**

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**VOC Braco Gloss Clear**

# 282260SP/01

VOC Braco Clear 282260SP/01 is a high gloss 2.8 or 3.5 VOC compliant clear finish specifically developed for metals which tarnish, including brass, bronze or any copper\*.

VOC Braco Clear 282260SP/01 is formulated with UV agents that ensure excellent gloss retention and protection of the color and substrate underneath.

\*NOTE: 274793SP/01 Spray Bond must be applied first.



**Features:**

**Benefits:**

- |                                   |   |
|-----------------------------------|---|
| Durable gloss finish .....        | Adds depth and appearance   |
| Air-dry or force-dry capable..... | Fits most shop conditions   |
| Superior UV resistance.....       | Excellent color and gloss retention; Extended life cycle; Reduced maintenance costs           |
| Anti-tarnish .....                | Preserves original appearance of decorative metals; Prevents discoloration of polished metals |
| 2K Acrylic polyurethane .....     | Resistance to weathering; Resistance to chalking; Long-term durability                        |
| Brush and roll capability .....   | For use in areas where air spraying is prohibited   |
| Low VOC technology .....          | Environmentally friendly; Complies with VOC regulations; High solids                          |

**Compatible Surfaces:**

**282260SP/01 VOC Braco Gloss Clear may be applied over properly prepared:**

- Brass\*
- Bronze\*
- Copper\*
- 274793SP/01 Low VOC Spray Bond

\*NOTE: 274793SP/01 Spray Bond must be applied to Brass, Bronze, or Copper prior to clearcoating.

**Associated Products:**

**Catalyst**

283800SP/01

**3.5 VOC Reducer**

- 6300SP/01 Cool temperature, 60 - 75°F (16 - 24°C)
- 6301SP/01 Warm temperature, 70 - 85°F (21 - 29°C)
- 6302SP/01 Hot temperature, 80°F (27°C) & above

**2.8 VOC Reducer**

- 6370SP/01 Cool temperature, 60 - 75°F (16 - 24°C)
- 6371SP/01 Warm temperature, 70 - 85°F (21 - 29°C)
- 6372SP/01 Hot temperature, 80°F (27°C) & above

**Accelerator**

- 287437SP/08 HS Accelerator
- 47117SP/04 MAP Accelerator
- 287484SP/08 HS Turbo Enhancer
- MAP-LVA117/08 Ultra Low VOC Accelerator

# 282260SP/01

## Directions for Use

**Surface Preparation:** Substrate should be prepared according to Matthews Substrate Preparation Guide prior to topcoat application.

**Mix Ratio:**



Mix Ratio for Spraying (by volume)

282260SP/01	283800SP/01	Reducer*	with Accelerator
3 parts	1 part	1 part	Optional**

\*Choose VOC MAP reducer

**3.5 VOC Reducer**

- 6300SP/01 Cool temperature, 60 - 75°F (16 - 24°C)
- 6301SP/01 Warm temperature, 70 - 85°F (21 - 29°C)
- 6302SP/01 Hot temperature, 80°F (27°C) & above

**2.8 VOC Reducer**

- 6370SP/01 Cool temperature, 60 - 75°F (16 - 24°C)
- 6371SP/01 Warm temperature, 70 - 85°F (21 - 29°C)
- 6372SP/01 Hot temperature, 80°F (27°C) & above
- NOTE: Larger jobs may require a hotter temperature reducer.

\*\*Refer to MPC218 for optional accelerators and amounts.

- For Brushing and Rolling, refer to Technical Data Sheet MPC159.
- All components should be mixed thoroughly before using
- Strain material after mixing



**Pot Life:** Pot-life is the amount of time before spray viscosity doubles. These are estimates based on lab results at 50% relative humidity, 70°F/21°C—results will vary based on application conditions, reducer selection, and accelerator choice.

Note: mix no more product than can be used within time limits listed below:

Application Method	Accelerator*	Max load of accelerator per RTS qt	Pot-Life
Spraying	Without Accelerator		8 hours
	287437SP/08	1.5 oz	2 hours
	MAP-LVA117/08	.5 oz	45 min
	47117SP/04	1 oz	1 hour
	287484SP/08	.5 oz	1 hour
Brush and Roll	Accelerator is Not Recommended when brushing or rolling		8 hours

\*Times listed in the chart above are for a full load of accelerator. Refer to MPC218 for optional accelerators and amounts.

**Additives:**



None required, but the following may be used for specific application or project needs:

- 47444SP/04 Brush/Roller Additive\*
- 47474SP/04 Flex Additive\*

\*47444SP/04 Brush/Roller Additive and 47474SP/04 Flex Additive can be used in areas with 3.5 VOC regulations

# 282260SP/01

## Directions for Use

### Spray Set Up:



Air Pressure: Conventional: 40 - 50 psi at the gun\*  
 HVLP: 10 psi at the cap\*  
 \* Refer to spray gun manufacturer recommendations for inlet pressure.



Pressure Pot Fluid Delivery: 8 - 12 Fluid Ounces per Minute



Gun Set Up: Siphon Feed: 1.2 - 1.4 mm 0.047 - 0.055 fluid tip  
 HVLP: 1.2 - 1.4 mm 0.047 - 0.055 fluid tip  
 Pressure Pot: 1.0 - 1.2 mm 0.039 - 0.047 fluid tip

### Application:



Apply: Apply two full wet coats, allowing proper flash time\* between coats. Apply additional coats as necessary to achieve total dry film thickness and/or metallic control.

\*Flash times will vary dependent upon film thickness, temperature, solvent selection, spray gun set-up, application, etc.

Recommended Film Thickness:	Wet Film Thickness (WFT)	Per Coat	Total
		3 - 4 mils	6 - 8 mils
	Dry Film Thickness (DFT)	1 mils	2 mils

**Caution:** All 2-component crosslinking slows significantly at temperatures below 60°F or 16°C. Never spray or subject freshly painted coatings to these conditions or loss of gloss, decreased durability and improper curing can occur.

### Estimated Drying Times:



Air-Dry @ 50% Relative Humidity, 70°F/21°C  
 282260SP/01 (mixed 3:1:1 with catalyst and reducer)

Accelerator*	Dust Free	Set to Touch	Dry to Handle	Tape Time	Vinyl Application (2-3 mils)	Reflective Metallic Vinyl Application
Without Accelerator	15 minutes	30 min-1 hour	1.5-2 hours	16 hours	48 hours	96 hours
287437SP/08	15 minutes	30-45 minutes	1-1.5 hours	1 hour	24 hours	48 hours
MAP-LVA117/08	15 minutes	30-45 minutes	1-1.5 hours	45 minutes	24 hours	48 hours
47117SP/04	15 minutes	30-45 minutes	45 min-1 hour	45 minutes	24 hours	48 hours
287484SP/08	15 minutes	30-45 minutes	45 min-1 hour	2 hours	8 hours	24 hours

\*Times listed in the chart above are for a full load of accelerator. Refer to MPC218 for optional accelerators and amounts.

**Recoating:** Paint films cured over 24 hours should be cleaned, lightly dry scuff sanded with 320 – 400g by hand/machine or wet sanded with 600g, then cleaned again before recoating.

**Force Dry:** Allow 30 minute purge before baking to prevent solvent popping. Bake for 40 minutes at 140°.

### Equipment Cleaning:

Clean equipment promptly with lacquer thinner or equivalent cleaning solvent.

**Note: Do not leave mixed material in equipment.**

**Technical Data:****3.5 VOC Information**

VOC Actual RTS	2.71 - 2.8 lbs/gal
VOC Actual RTS	324 - 335 g/L
VOC Regulatory (less water less exempt) RTS	3.02 - 3.11 lbs/gal
VOC Regulatory (less water less exempt) RTS	361 - 372 g/L

**Important:** to maintain 3.5 VOC compliance when using accelerators, use no more than .5oz per RTS qt of the following accelerators: 287 437SP, MAP-LVA117, 47117SP, or 287484SP.

**2.8 VOC Information**

VOC Actual RTS	2.08 - 2.25 lbs/gal
VOC Actual RTS	249 - 270 g/L
VOC Regulatory (less water less exempt) RTS	2.59 - 2.79 lbs/gal
VOC Regulatory (less water less exempt) RTS	310 - 334 g/L

**Important:** to maintain 2.8 VOC compliance do not use more than 1.0oz 287 437SP accelerator per RTS quart.

For complete VOC information, visit [MatthewsPaint.com](http://MatthewsPaint.com) > Quick Links > VOC Data

**Performance Characteristics**

Volume solids (RTS)	48.08 - 50.26%
Theoretical Coverage (1 mil @ 100% transfer efficiency)	771 - 806 sq.ft./RTS gal
Application Conditions - Temperature	60°F (16°C) Minimum 100°F (38°C) Maximum
Application Conditions - Relative Humidity	85% maximum 5° above dew point

**Important:** The contents of this package may have to be blended with other components before the product can be used. Before opening the packages, be sure you understand the warning messages on the labels of all components, since the mixture will have the hazards of all its parts. Improper spray technique may result in a hazardous condition. Follow spray equipment manufacturer's instructions to prevent personal injury or fire. Follow directions for respirator use. Wear eye and skin protection. Observe all applicable precautions.

**See Safety Data Sheet and Labels for additional safety information and handling instructions.**

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**High Performance Clear**

# 6178SP/01

Matthews 6178SP/01 High Performance Clear is a premium quality, polyester-based, high gloss clear.

6178SP/01 produces an unsurpassed durable finish that is resistant to graffiti, chlorine and salt water exposure.

6178SP/01 is a high solids clear and is compliant in all 3.5 VOC regulated areas.

6178SP/01 is not intended for use as a coating for anti-fouling or use in marine applications.



**Features:**

**Benefits:**

- Durable gloss finish ..... Adds depth and appearance
- Air-dry or force-dry capable..... Fits most shop conditions
- High performance polyester technology..... Resistance to chlorine, salt water, weathering, and chalking; Semi-Submersible
- Excellent UV resistance ..... Excellent color and gloss retention; Extended life cycle; Reduced maintenance costs

**Compatible Surfaces:**

**6178SP/01 High Performance Clear may be applied over properly prepared:**

- MAP® ..... 74777SP/01 Tie Bond Adhesive\*\*
- Satin MAP® ..... 274777SP/01 Low VOC Tie Bond Adhesive\*\*
- Satin VOC MAP® ..... 274793SP/01 Low VOC Spray Bond Adhesive\*\*
- MAP-LVG Acrylic Polyurethane\*
- MAP-LVS Acrylic Polyurethane\*

\*To ensure proper adhesion, apply HP Clear immediately following flash-off of final coat of LVG or LVS color.

\*\*Warning: HP Clear cannot be applied directly over 74777SP/01 Tie Bond, 274777SP/01 Tie Bond or 274793SP/01 Spray Bond. If Tie Bond or Spray Bond is used, apply one coat of conventional or low VOC clears before applying HP Clear.

**Associated Products:**

- Catalyst**  
6278SP/01 High Performance Catalyst
- Reducer**  
6378SP-S/01 HP Clear Reactive Reducer

# 6178SP/01

## Directions for Use

### Surface Preparation:

Substrate should be prepared according to Matthews Substrate Preparation Guide prior to topcoat application.

### Mix Ratio:



Mix Ratio for Spraying (by volume)

6178SP/01	6278SP/01	6378SP-S/01
HP Clear	: HP Catalyst	: HP Reducer

1 part : 1 part : 1/2 part

All components should be mixed thoroughly before using  
Strain material after mixing



**Pot Life:** 4 hours

Pot-life is the amount of time before spray viscosity doubles. These are estimates based on lab results at 50% relative humidity, 70°F/21°C—results will vary based on application conditions.  
Note: mix no more product than can be used within time limits listed below:

### Additives:



None

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### Spray Set Up:



Air Pressure:	Conventional:	40 - 50 psi at the gun*
	HVLP:	10 psi at the cap*

\* Refer to spray gun manufacturer recommendations for inlet pressure.



Pressure Pot Fluid Delivery:	8 - 12 Fluid Ounces per Minute
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Gun Set Up:	Siphon Feed:	1.2 - 1.4 mm 0.047 - 0.055 fluid tip
	HVLP:	1.2 - 1.4 mm 0.047 - 0.055 fluid tip
	Pressure Pot:	1.0 - 1.2 mm 0.039 - 0.047 fluid tip

# 6178SP/01

## Directions for Use

### Application:



Apply:

Apply two to three medium wet coats, allowing proper flash time\* between coats. Apply additional coats as necessary to achieve total dry film thickness.

\*Flash times will vary dependent upon film thickness, temperature, spray gun set-up, application, etc.

Recommended Film Thickness:		Per Coat	Total
	Wet Film Thickness (WFT)	1.6 - 1.8 mils	3.2 - 5.4 mils
	Dry Film Thickness (DFT)	0.8 - 0.9 mils	1.5 - 2.7 mils

**Caution:** All 2-component crosslinking slows significantly at temperatures below 60°F or 16°C. Never spray or subject freshly painted coatings to these conditions or loss of gloss, decreased durability and improper curing can occur.

### Estimated Drying Times:



Air-Dry @ 50% Relative Humidity, 70°F/21°C

Dust Free	1 hour
Set to Touch	2.5 hours
Dry to Handle	5 hours

**Recoating:** Paint films cured over 8 hours should be cleaned, lightly dry scuff sanded with 320 – 400g by hand/machine or wet sanded with 600g, then cleaned again before recoating.

**Force Dry:** Allow 30 minute purge before baking to prevent solvent popping. Bake for 40 minutes at 140°.

### Equipment Cleaning:

Clean equipment promptly with lacquer thinner or equivalent cleaning solvent.

**Note: Do not leave mixed material in equipment.**

### Technical Data:

#### VOC Information

VOC Actual RTS	3.08 lbs/gal
VOC Actual RTS	369 g/L
VOC Regulatory (less water less exempt) RTS	3.37 lbs/gal
VOC Regulatory (less water less exempt) RTS	404 g/L

For complete VOC information, visit [MatthewsPaint.com](http://MatthewsPaint.com) > Quick Links > VOC Data

#### Performance Characteristics

Volume solids (RTS)	47.6%
Theoretical Coverage (1 mil @ 100% transfer efficiency)	763 sq.ft./RTS gal
Application Conditions - Temperature	60°F (16°C) Minimum 100°F (38°C) Maximum
Application Conditions - Relative Humidity	85% maximum 5° above dew point

# 6178SP/01

High Performance Clear

**Important:** The contents of this package may have to be blended with other components before the product can be used. Before opening the packages, be sure you understand the warning messages on the labels of all components, since the mixture will have the hazards of all its parts. Improper spray technique may result in a hazardous condition. Follow spray equipment manufacturer's instructions to prevent personal injury or fire. Follow directions for respirator use. Wear eye and skin protection. Observe all applicable precautions.

**See Safety Data Sheet and Labels for additional safety information and handling instructions.**

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**Super Satin Clear Kit**

290228-1/KT, 290228-4/KT

This Super Satin Clear Kit is a two-component, fluoropolymer clear, which was developed to provide extended performance under the toughest conditions.

Super Satin Clear is designed for topcoat applications to protect color coated substrate components, vinyl graphics or to highlight architectural metals, while providing extreme durability and protection.

Super Satin Clear is designed to meet the most stringent VOC regulations.\*



\*Note: when using Exempt reducers

**Features:**

**Benefits:**

Satin-in-the-can.....	No additional flattening agent needed; Consistent gloss and finish; Less time to mix
Air-dry or force-dry capable .....	Fits most shop conditions
Excellent UV resistance .....	Excellent color and gloss retention; Extended life cycle; Reduced maintenance costs
Low VOC technology .....	Environmentally friendly, complies with VOC regulations
Graffiti resistant.....	Most chemical graffiti can be removed with an appropriate solvent once finish is fully cured
High performance 2K Fluoropolymer technology ...	Superior durability and improved performance over standard clears; Resistance to weathering, chalking, dirt and grime build up

**Compatible Surfaces:**

**290228-1/KT and 290228-4/KT Super Satin Clear may be applied over properly prepared:**

MAP®	MAP-LVG Acrylic Polyurethane*	274777SP/01 Tie Bond Adhesive
Satin MAP®	MAP-LVS Acrylic Polyurethane*	274793SP/01 Spray Bond Adhesive
Satin VOC MAP®	74777SP/01 Tie Bond Adhesive	

\*To ensure proper adhesion, apply 290228-1/KT and 290228-4/KT Super Satin Clear immediately following flash-off of final coat of LVG or LVS color.

**Associated Products:**

<b>Catalyst</b>	<b>Exempt Reducers</b>	<b>Low VOC Reducers</b>
283920SP/4Z* Catalyst	6370SP/01 Cool temperature, 60 - 75°F (16 - 24°C)	6300SP/01 Cool temperature, 60 - 75°F (16 - 24°C)
*Also available in /8Z	6371SP/01 Warm temperature, 70 - 85°F (21 - 29°C)	6301SP/01 Warm temperature, 70 - 85°F (21 - 29°C)
	6372SP/01 Hot temperature, 80°F (27°C) & above	6302SP/01 Hot temperature, 80°F (27°C) & above

# 290228-1/KT, 290228-4/KT

## Directions for Use

**Surface Preparation:** Substrate should be prepared according to Matthews Substrate Preparation Guide prior to topcoat application.

**Mix Ratio:**



Kit Mix Ratio (by volume). Using the entire kit at one time is recommended.

	Clear	Catalyst	Reducer*	Total RTS Quantity
<b>Gallon Kit</b>	Entire contents of gallon can	+ Entire contents of can (7.42 fl oz.)	+ 22 fl oz.	= 150 fl oz.
<b>Quart Kit</b>	Entire contents of quart can	+ Entire contents of can (1.86 fl oz.)	+ 6 fl oz.	= 38 fl oz.

Choose VOC MAP reducer. Where VOC limits of 2.8 or less are not required, Matthews conventional reducers can be used.

**Low VOC Reducer**

- 6300SP/01 Cool temperature, 60 - 75°F (16 - 24°C)
- 6301SP/01 Warm temperature, 70 - 85°F (21 - 29°C)
- 6302SP/01 Hot temperature, 80°F (27°C) & above

**Exempt Reducer**

- 6370SP/01 Cool temperature, 60 - 75°F (16 - 24°C)
- 6371SP/01 Warm temperature, 70 - 85°F (21 - 29°C)
- 6372SP/01 Hot temperature, 80°F (27°C) & above

NOTE: Larger jobs may require a hotter temperature reducer.



**Pot Life:** 4 hours

Pot-life is the amount of time before spray viscosity doubles. These are estimates based on lab results at 50% relative humidity, 70°F/21°C—results will vary based on application conditions and reducer selection.

Note: mix no more product than can be used within pot life.

**Additives:**



None

**Spray Set Up:**



Air Pressure: Conventional: 40 - 50 psi at the gun\*  
 HVLP: 10 psi at the cap\*

\* Refer to spray gun manufacturer recommendations for inlet pressure.



Pressure Pot Fluid Delivery: 8 - 12 Fluid Ounces per Minute



Gun Set Up: Siphon Feed: 1.4 - 1.8 mm 0.055 - 0.0708 fluid tip  
 HVLP: 1.4 - 1.8 mm 0.055 - 0.0708 fluid tip  
 Pressure Pot: 1.0 - 1.2 mm 0.039 - 0.047 fluid tip

# 290228-1/KT, 290228-4/KT

## Directions for Use

### Application:



Apply:

Apply two full wet coats, allowing proper flash time\* between coats. Apply additional coats as necessary to achieve total dry film thickness.

\*Flash times will vary dependent upon film thickness, temperature, solvent selection, spray gun set-up, application, etc.

Recommended  
Film Thickness:

	Per Coat	Total
Wet Film Thickness (WFT)	2.5 - 3.7 mils	5.1 - 7.5 mils
Dry Film Thickness (DFT)	0.8 - 1.1 mils	1.5 - 2.2 mils

**Caution:** All 2-component crosslinking slows significantly at temperatures below 60°F or 16°C. Never spray or subject freshly painted coatings to these conditions or loss of gloss, decreased durability and improper curing can occur.

### Estimated Drying Times:



Air-Dry @ 50% Relative Humidity, 70°F/21°C

Dust Free	15 min
Dry to Touch	1 hour
Dry to Handle	12-16 hours

**Recoating:** Paint films cured over 24 hours should be cleaned, lightly dry scuff sanded with 320 – 400g by hand/machine or wet sanded with 600g, then cleaned again before recoating.

**Force Dry:** Allow 30 minute purge before baking to prevent solvent popping. Bake for 40 minutes at 140°.

### Equipment Cleaning:

Clean equipment promptly with any low VOC all-purpose cleaning solvent. Acetone should be used for cleanup in environmentally regulated areas.

**Note: Do not leave mixed material in equipment.**

### Technical Data:

#### VOC Information (with Exempt Reducers)

VOC Actual RTS	7.24 lbs/gal
VOC Actual RTS	867 g/L
VOC Regulatory (less water less exempt) RTS	1.25 lbs/gal
VOC Regulatory (less water less exempt) RTS	150 g/L

#### VOC Information (with Low VOC Reducers)

VOC Actual RTS	7.06 - 7.24 lbs/gal
VOC Actual RTS	846 - 867 g/L
VOC Regulatory (less water less exempt) RTS	2.12 - 2.13 lbs/gal
VOC Regulatory (less water less exempt) RTS	254 - 255 g/L

Note: Where VOC limits of 2.8 or less are not required, Matthews conventional reducers can be used.

For complete VOC information, visit [MatthewsPaint.com](http://MatthewsPaint.com) > Quick Links > VOC Data

#### Performance Characteristics

Volume solids (RTS)	29.88%
Theoretical Coverage (1 mil @ 100% transfer efficiency)	479 sq.ft./RTS gal
Application Conditions - Temperature	60°F (16°C) Minimum 100°F (38°C) Maximum
Application Conditions - Relative Humidity	85% maximum 5° above dew point

# 290228-1/KT, 290228-4/KT

**Super Satin  
Clear Kit**

**Important:** The contents of this package may have to be blended with other components before the product can be used. Before opening the packages, be sure you understand the warning messages on the labels of all components, since the mixture will have the hazards of all its parts. Improper spray technique may result in a hazardous condition. Follow spray equipment manufacturer's instructions to prevent personal injury or fire. Follow directions for respirator use. Wear eye and skin protection. Observe all applicable precautions.

**See Safety Data Sheet and Labels for additional safety information and handling instructions.**

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Customize your application with **Matthews Additives** to achieve your project goals! Our suede additives provide a unique, textured finish. Matthews metallic tones help you achieve optimum brilliance. Brush and roll additives offer maximum leveling and flow characteristics. Our low VOC basecoat converters allow you to paint multicolor signs in hours instead of days.

### Technical Data Sheets

**Accelerators Usage Comparison**..... 267-268

**287103SP/01 Low VOC Basecoat Converter** ..... 269-272

**SOA955SP/01 Matting Clear Additive Binder** ..... 273-276

**47888SP/01 Flattening Paste** ..... 277-280

**287112SP/04, 287113SP/04 Suede Additives-Medium and Coarse** ..... 281-284

**47444SP/04 Brushing/Rolling Additive, 43621SP/04 Brushing Catalyst**..... 285-288

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**47474SP/04 Flex Additive**..... 293-296

### The Complete Matthews Paint System







## Matthews Accelerator Usage Comparison

# Accelerators

		Code	287437SP/08	MAP-LVA117/08	47117SP/04	287484SP/08	SM166A/04
		Description	HS Accelerator	Ultra Low VOC Urethane Accelerator	MAP Accelerator	HS Turbo Enhancer	Tape-It Accelerator
		Contains Pot Life Extender	Yes	No	No	Yes	Yes
Max load per RTS qt	Conventional	N Series, SOA, Toners & Factory Pack	1.5 oz	1 oz	1 oz	1/2 oz	Not Recommended
		42208SP/01, SOA365SP/01, SOA4158SP/01, 42228SP/01, 42900SP/01, 42260SP/01	1.5 oz	1 oz	1 oz	1/2 oz	Not Recommended
	SVOC	SVOC, Toners & Factory Pack	1.5 oz	1/2 oz	1 oz	1/2 oz	Not Recommended
		SV228SP/01 & SV208SP/01	1.5 oz	1/2 oz	1 oz	1/2 oz	Not Recommended
	VOC	282208SP/01, 281228SP/01, 282260SP/01	1.5 oz	1/2 oz	1 oz	1/2 oz	Not Recommended
	Ultra Low VOC	MAP-LVG	1/2 oz	1/2 oz	1/2 oz	Not Recommended	Not Recommended
		MAP-LVC208/01	1/2 oz	1/2 oz	1/2 oz	Not Recommended	Not Recommended
		MAP-LVS	1.5 oz	1 oz	1 oz	1/2 oz -1 oz	1/4 oz-1 oz
		MAP-LVC228/01 & MAP-LVC238/01	1.5 oz	1 oz	1 oz	1/2 oz -1 oz	1/4 oz-1 oz
	Primer	274685SP/01 U-Prime	1.5 oz	Not Recommended	Not Recommended	Not Recommended	Not Recommended

**Notes:**

- Accelerators are not intended for use in all Matthews products. Refer to the chart above for approved products and amounts.
- For complete details as to how accelerators affect pot life and drying times, refer to individual technical data sheets (TDS).

# Accelerators

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**Important:** The contents of this package may have to be blended with other components before the product can be used. Before opening the packages, be sure you understand the warning messages on the labels of all components, since the mixture will have the hazards of all its parts. Improper spray technique may result in a hazardous condition. Follow spray equipment manufacturer's instructions to prevent personal injury or fire. Follow directions for respirator use. Wear eye and skin protection. Observe all applicable precautions.

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**See Safety Data Sheet and Labels for additional safety information and handling instructions.**

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**Low VOC Basecoat Converter**

# 287103SP/01

287103SP/01 Basecoat Converter is a premium quality acrylic additive specifically designed for use in any Matthews MAP® conventional or low VOC Acrylic Polyurethane\* colors to improve metallic control and to allow for quick multi-color layouts typically required for the architectural and commercial sign market.

The use of 287103SP/01 Basecoat Converter necessitates the application of a clear coat for exterior performance. The combination of basecoat with gloss clear exhibits the highest possible gloss and distinctness of image.



**Features:**

**Benefits:**

Converts all MAP® or SVOC topcoats\* to a basecoat.....Faster dry and tape time for multiple colors; Better metallic control  
 Can be topcoated with any Matthews clear .....Versatile; Long-term durability

**Compatible Surfaces:**

**Converted Matthews Basecoat may be applied over properly prepared:**

- |  |                                    |                                      |
|--|------------------------------------|--------------------------------------|
| 6001SP/01 Polyester Primer Surfacer    | 74350SP/01 3.5 Non-Chromate Primer | LVU100/01 Ultra Low VOC Epoxy Primer |
| 6007SP/01 3.5 Gray Epoxy Primer        | 74734SP/01 Metal Pretreatment      |                                      |
| 274685SP/01 U Prime                    | 74760SP/01 PT Filler               |                                      |
| 274808SP/01 Black Epoxy Primer         | 74770SP/01 HBPT                    |                                      |
| 274908SP/01 White Epoxy Primer         | 74780SP/01 HBEF                    |                                      |
| 274528SP/01 2.1 VOC Gray Epoxy Primer  | 74777SP/01 Tie Bond                |                                      |
| 274530SP/01 2.1 VOC White Epoxy Primer | 274777SP/01 Low VOC Tie Bond       |                                      |
| 274531SP/01 2.1 VOC Black Epoxy Primer | 274793SP/01 Low VOC Spray Bond     |                                      |

**Associated Products:**

Any Matthews Conventional or Low VOC colors (including associated catalysts and reducers)  
 Any Matthews Conventional or Low VOC clears (including associated catalysts and reducers)

**\*NOTE: 287103SP/01 Low VOC Basecoat Converter is not to be used in Matthews Ultra Low VOC topcoats or clears.**

# 287103SP/01

## Directions for Use

**Surface Preparation:** Substrate should be prepared according to Matthews Substrate Preparation Guide prior to topcoat application.

**Mix Ratio:**



Mix Ratio for Spraying (by volume)

Any Matthews SOA, N, or SV color/clear	:	Catalyst*	:	Converter	+	287437SP/08 Accelerator
3 parts	:	1 part	:	3 parts	+	1.5 oz per RTS qt** (optional)

\*Refer to Technical Data Sheet (TDS) for Matthews Topcoat or Clear being used.

\*\*To maintain 2.8 VOC, do not use accelerator.

No further reduction is necessary.  
All components should be mixed thoroughly before using.  
Strain material after mixing.



**Pot Life:** 8 hours

Pot-life is the amount of time before spray viscosity doubles. These are estimates based on lab results at 50% relative humidity, 70°F/21°C—results will vary based on application conditions and accelerator use.

Note: mix no more product than can be used within pot life.

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**Additives:**



None

**Spray Set Up:**



Air Pressure: Conventional: 40 - 50 psi at the gun\*  
HVLV: 10 psi at the cap\*

\* Refer to spray gun manufacturer recommendations for inlet pressure.



Pressure Pot Fluid Delivery: 8 - 12 Fluid Ounces per Minute



Gun Set Up: Siphon Feed: 1.2 - 1.4 mm 0.047 - 0.055 fluid tip  
HVLV: 1.2 - 1.4 mm 0.047 - 0.055 fluid tip  
Pressure Pot: 1.0 - 1.2 mm 0.039 - 0.047 fluid tip

# 287103SP/01

## Directions for Use

### Application:



Apply:

Apply two full wet coats, allowing proper flash time\* between coats. Apply additional coats as necessary to achieve total dry film thickness and/or metallic control.

\*Flash times will vary dependent upon film thickness, temperature, spray gun set-up, application, etc.

Recommended  
Film Thickness:

	Per Coat	Total
Wet Film Thickness (WFT)	1.5 - 2.0 mils	3.0 - 4.0 mils
Dry Film Thickness (DFT)	0.3 - 0.5 mils	0.6 - 1.0 mils

**Caution:** All 2-component crosslinking slows significantly at temperatures below 60°F or 16°C. Never spray or subject freshly painted coatings to these conditions or loss of gloss, decreased durability and improper curing can occur.

### Estimated Drying Times\*:



Air-Dry @ 50% Relative Humidity, 70°F/21°C

Accelerator	Dust Free	Set to Touch	Tape Time	Vinyl Application (2-3 mils)	Dry to Clearcoat
Without Accelerator	10-15 minutes	15-20 minutes	1.5 hours	4 hours	15-45 minutes
287437SP/08	10-15 minutes	15-20 minutes	30-40 minutes	2 hours	15-45 minutes

**Recoating:** Converted color or clear should clearcoat within 12 hours. Otherwise, lightly dry scuff with 320 - 400g by hand/machine or wet sanded with 600g, then cleaned again before reapplying basecoat and clearing.

\*Note: actual times may vary based on application variables, temperature, type of primer used, etc.

### Equipment Cleaning:

Clean equipment promptly with lacquer thinner or equivalent cleaning solvent.

**Note: Do not leave mixed material in equipment.**

# 287103SP/01

**Low VOC Basecoat  
Converter**

**Technical Data:**

**Above 3.5 VOC Information using MAP or Satin MAP Acrylic Polyurethane**

VOC Actual RTS	2.5 - 3.05 lbs/gal
VOC Actual RTS	300 - 365 g/L
VOC Regulatory (less water less exempt) RTS	4.16 - 4.95 lbs/gal
VOC Regulatory (less water less exempt) RTS	498 - 593 g/L

**3.5 VOC Information using Low VOC Satin Acrylic Polyurethane with up to 1.5 oz of 287 437SP per RTS qt.**

VOC Actual RTS	0.78 - 1.42 lbs/gal
VOC Actual RTS	93 - 170 g/L
VOC Regulatory (less water less exempt) RTS	2.08 - 3.16 lbs/gal
VOC Regulatory (less water less exempt) RTS	249 - 379 g/L

**2.8 VOC Information using SV931 Low VOC Satin Acrylic Polyurethane as example**

VOC Actual RTS	0.78 lbs/gal
VOC Actual RTS	93 g/L
VOC Regulatory (less water less exempt) RTS	2.08 lbs/gal
VOC Regulatory (less water less exempt) RTS	249 g/L

For complete VOC information, visit [MatthewsPaint.com](http://MatthewsPaint.com) > Quick Links > VOC Data

**Performance Characteristics**

Volume solids (RTS)	20.8% - 26.9%
Theoretical Coverage (1 mil @ 100% transfer efficiency)	333 - 431 sq.ft./RTS gal
Application Conditions - Temperature	60°F (16°C) Minimum 100°F (38°C) Maximum
Application Conditions - Relative Humidity	85% maximum 5° above dew point

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**Important:** The contents of this package may have to be blended with other components before the product can be used. Before opening the packages, be sure you understand the warning messages on the labels of all components, since the mixture will have the hazards of all its parts. Improper spray technique may result in a hazardous condition. Follow spray equipment manufacturer's instructions to prevent personal injury or fire. Follow directions for respirator use. Wear eye and skin protection. Observe all applicable precautions.

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## Matting Clear Additive Binder

# SOA955SP/01

SOA955SP/01 Matting Clear Additive Binder is designed to lower the gloss units (GU) of Matthews conventional topcoats or clears\*, creating intermediate gloss levels from matte to semi-gloss.

SOA955SP/01 can be stored on the mixing bank with an agitator lid making it easy to pour.

NOTE: SOA955SP/01 Matting Clear Additive Binder cannot be used as a topcoat clear.

\*If VOC is not a concern, SOA955SP/01 can be used in SVOC topcoats as well as VOC and SVOC clears. SOA955SP/01 cannot be used in MAP-LV topcoats or clears.



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### Compatible Surfaces:

Flattened Matthews topcoats or clears may be applied over properly prepared:

6001SP/01 Polyester Primer Surfacer	74350SP/01 3.5 Non-Chromate Primer	LVU100/01 Ultra Low VOC Epoxy Primer
6007SP/01 3.5 Gray Epoxy Primer	74734SP/01 Metal Pretreatment	
274685SP/01 U Prime	74760SP/01 PT Filler	
274808SP/01 Black Epoxy Primer	74770SP/01 HBPT	
274908SP/01 White Epoxy Primer	74780SP/01 HBEF	
274528SP/01 2.1 VOC Gray Epoxy Primer	74777SP/01 Tie Bond	
274530SP/01 2.1 VOC White Epoxy Primer	274777SP/01 Low VOC Tie Bond	
274531SP/01 2.1 VOC Black Epoxy Primer	274793SP/01 Low VOC Spray Bond	

### Associated Products:

Any Matthews Conventional or Low VOC colors (including associated catalysts and reducers)

Any Matthews Conventional or Low VOC clears (including associated catalysts and reducers)

\*NOTE: SOA955SP/01 Matting Clear is not to be used in Matthews Ultra Low VOC topcoats or clears.

# SOA955SP/01

## Directions for Use

### Surface Preparation:



Substrate should be prepared according to Matthews Substrate Preparation Guide prior to topcoat application.

### Mix Ratio:

SOA955SP/01 Matting Clear Additive Binder is to be added to color or clear before catalyzing and reducing. See chart below.

Note: SOA955SP/01 should be shaken or agitated thoroughly before mixing.

Mix color or clear and SOA955SP/01 together by weight on the scale to ensure accurate gloss level. Then catalyze and reduce by volume according to specific Technical Data Sheets (TDS).

Product	Gloss Level*	Add by weight on scale: Percentage of SOA955SP/01	Once SOA955SP/01 has been added to color/clear, catalyze and reduce by volume according to specific Technical Data Sheet (TDS):	Refer to TDS:
SOA	Semi Satin	25-30% 30-40%		MPC100
42208SP/01	Semi Satin	10-15% 25-30%		MPC177
N	Matte	35-40%		MPC102
42228SP/01	Matte	35-40%		MPC178

- Once mixed, stir thoroughly to ensure the proper dispersion of matting binder.
- Strain material after mixing.

\*Variations in gloss levels can be caused by application, equipment, temperature, solvent selection, accelerator choice, etc.

**For information regarding Additives, Spray Equipment, Application, and Dry Times, refer to specific Technical Data Sheets (TDS) listed in the table above.**

# SOA955SP/01

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**Technical Data:****VOC Information**

VOC Actual RTS	4.46 – 5.50 lbs/gal
VOC Actual RTS	534 – 659 g/L
VOC Regulatory (less water less exempt) RTS	4.46 – 5.49 lbs/gal
VOC Regulatory (less water less exempt) RTS	534 – 658 g/L

For complete VOC information, visit [MatthewsPaint.com](http://MatthewsPaint.com) > Quick Links > VOC Data

**Performance Characteristics**

Volume solids (RTS)	Refer to TDS of topcoat or clear being used
Theoretical Coverage (1 mil @ 100% transfer efficiency)	Refer to TDS of topcoat or clear being used
Application Conditions - Temperature	60°F (16°C) Minimum 100°F (38°C) Maximum
Application Conditions - Relative Humidity	85% maximum 5° above dew point

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**Important:** The contents of this package may have to be blended with other components before the product can be used. Before opening the packages, be sure you understand the warning messages on the labels of all components, since the mixture will have the hazards of all its parts. Improper spray technique may result in a hazardous condition. Follow spray equipment manufacturer's instructions to prevent personal injury or fire. Follow directions for respirator use. Wear eye and skin protection. Observe all applicable precautions.

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**See Safety Data Sheet and Labels for additional safety information and handling instructions.**

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# SOA955SP/01

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**Matting Clear  
Additive Binder**

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## Flattening Paste

# 47888SP/01

47888SP/01 Flattening Paste is designed to lower the gloss units (GU) of Matthews conventional topcoats or clears\*, creating intermediate gloss levels from matte to semi-gloss.

\*If VOC is not a concern, 47888SP/01 can be used in SVOC topcoats as well as VOC and SVOC clears. 47888SP/01 cannot be used in MAP-LV topcoats or clears.



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### Compatible Surfaces:

**Flattened Matthews topcoats or clears may be applied over properly prepared:**

6001SP/01 Polyester Primer Surfacer	74350SP/01 3.5 Non-Chromate Primer	LVU100/01 Ultra Low VOC Epoxy Primer
6007SP/01 3.5 Gray Epoxy Primer	74734SP/01 Metal Pretreatment	
274685SP/01 U Prime	74760SP/01 PT Filler	
274808SP/01 Black Epoxy Primer	74770SP/01 HBPT	
274908SP/01 White Epoxy Primer	74780SP/01 HBEF	
274528SP/01 2.1 VOC Gray Epoxy Primer	74777SP/01 Tie Bond	
274530SP/01 2.1 VOC White Epoxy Primer	274777SP/01 Low VOC Tie Bond	
274531SP/01 2.1 VOC Black Epoxy Primer	274793SP/01 Low VOC Spray Bond	

### Associated Products:

Any Matthews Conventional or Low VOC colors (including associated catalysts and reducers)

Any Matthews Conventional or Low VOC clears (including associated catalysts and reducers)

**\*NOTE: 47888SP/01 Flattening Paste is not to be used in Matthews Ultra Low VOC topcoats or clears.**

# 47888SP/01

## Directions for Use

### Surface Preparation:



Substrate should be prepared according to Matthews Substrate Preparation Guide prior to topcoat application.

### Mix Ratio:

47888SP/01 Flattening Paste replaces all or part of the reducer after catalyzing topcoat or clear.

For best results, do not use and agitator lid. Keep 47888SP/01 closed in its original can when not in use.

47888SP/01 should be shaken thoroughly before each use.

Mix ingredients by volume according to the chart below:

Product	Gloss Level	Parts of Color or Clear	Parts of Catalyst*	Parts of 47888SP/01	Parts of Reducer*	Refer to TDS
SOA	Semi	3	1	0.25	0.75	MPC100
	Satin	3	1	1	-	
	Matte	3	1	2	-	
42208SP/01	Semi	3	1	0.25	0.75	MPC177
	Satin	3	1	1	-	
	Matte	3	1	2	-	
N	Matte	3	1	1	-	MPC102
42228SP/01	Matte	3	1	1	-	MPC178

\*Refer to specific Technical Data Sheet (TDS) for catalyst and reducer options.

- Once mixed, shake thoroughly to ensure the proper dispersion of flattening paste.
- Strain material after mixing.

\*Variations in gloss levels can be caused by application, equipment, temperature, solvent selection, accelerator choice, etc.

**For information regarding Additives, Spray Equipment, Application, and Dry Times, refer to specific Technical Data Sheets (TDS) listed in the table above.**

# 47888SP/01

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**Technical Data:****VOC Information**

VOC Actual RTS	4.91 - 5.91 lbs/gal
VOC Actual RTS	588 - 708 g/L
VOC Regulatory (less water less exempt) RTS	4.91 - 5.91 lbs/gal
VOC Regulatory (less water less exempt) RTS	588 - 708 g/L

For complete VOC information, visit [MatthewsPaint.com](http://MatthewsPaint.com) > Quick Links > VOC Data

**Performance Characteristics**

Volume solids (RTS)	Refer to TDS of topcoat or clear being used
Theoretical Coverage (1 mil @ 100% transfer efficiency)	Refer to TDS of topcoat or clear being used
Application Conditions - Temperature	60°F (16°C) Minimum 100°F (38°C) Maximum
Application Conditions - Relative Humidity	85% maximum 5° above dew point

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**Important:** The contents of this package may have to be blended with other components before the product can be used. Before opening the packages, be sure you understand the warning messages on the labels of all components, since the mixture will have the hazards of all its parts. Improper spray technique may result in a hazardous condition. Follow spray equipment manufacturer's instructions to prevent personal injury or fire. Follow directions for respirator use. Wear eye and skin protection. Observe all applicable precautions.

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**See Safety Data Sheet and Labels for additional safety information and handling instructions.**

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# 47888SP/01

Flattening Paste

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## Suede Additives-Medium and Coarse

# 287112SP/04, 287113SP/04

The Matthews Suede Additives 287112SP/04 (medium) and 287113SP/04 (coarse) will produce a uniform textured finish in any MAP®, SVOC, or MAP-LV topcoat or clear product.

Create a variety of textures from fine to coarse based on which suede additive is used and by altering the amount added to the ready-to-spray topcoat or clear.

287112SP/04 / 287113SP/04 is 100% solids and contains no added VOC.



### Compatible Surfaces:

**Textured Matthews topcoats or clears may be applied over properly prepared:**

6001SP/01 Polyester Primer Surfacer	74350SP/01 3.5 Non-Chromate Primer	LVU100/01 Ultra Low VOC Epoxy Primer
6007SP/01 3.5 Gray Epoxy Primer	74734SP/01 Metal Pretreatment	
274685SP/01 U Prime	74760SP/01 PT Filler	
274808SP/01 Black Epoxy Primer	74770SP/01 HBPT	
274908SP/01 White Epoxy Primer	74780SP/01 HBEF	
274528SP/01 2.1 VOC Gray Epoxy Primer	74777SP/01 Tie Bond	
274530SP/01 2.1 VOC White Epoxy Primer	274777SP/01 Low VOC Tie Bond	
274531SP/01 2.1 VOC Black Epoxy Primer	274793SP/01 Low VOC Spray Bond	

### Associated Products:

Any Matthews Conventional, Low VOC, or Ultra Low VOC colors (including associated catalysts and reducers)  
Any Matthews Conventional, Low VOC, or Ultra Low VOC clears (including associated catalysts and reducers)

# 287112SP/04, 287113SP/04

## Directions for Use

### Surface Preparation:



Substrate should be prepared according to Matthews Substrate Preparation Guide prior to topcoat application.

### Mix Ratio:

- Catalyze and reduce Matthews topcoat or clear as per specific Technical Data Sheet (TDS).
- Add 5% to 15% by weight of desired suede additive.
- Mix well before using.
- Do not strain before use.
- If applicable, remove cup filters before using this product.

\*Variations in texture can be caused by application, equipment, temperature, solvent selection, accelerator choice, etc.

**For information regarding Additives, Application, and Dry Times, refer to specific Technical Data Sheets (TDS) for the topcoat or clear being used.**

### Spray Set Up:



Air Pressure: Conventional: 40 - 50 psi at the gun\*  
HVLV: 10 psi at the cap\*

\* Refer to spray gun manufacturer recommendations for inlet pressure.



Pressure Pot Fluid Delivery: 8 - 12 Fluid Ounces per Minute



Gun Set Up: Siphon Feed: 1.4 - 1.6 mm 0.055 - 0.0629 fluid tip  
HVLV: 1.4 - 1.6 mm 0.055 - 0.0629 fluid tip  
Pressure Pot: 1.0 - 1.2 mm 0.039 - 0.047 fluid tip

# 287112SP/04, 287113SP/04

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**Technical Data:****VOC Information**

VOC Packaged	0 lbs/gal
VOC Packaged	0 g/L
VOC Actual RTS	Refer to TDS of topcoat or clear being used
VOC Regulatory (less water less exempt) RTS	Refer to TDS of topcoat or clear being used

For complete VOC information, visit [MatthewsPaint.com](http://MatthewsPaint.com) > Quick Links > VOC Data

**Performance Characteristics**

Volume solids (RTS)	Refer to TDS of topcoat or clear being used
Theoretical Coverage (1 mil @ 100% transfer efficiency)	Refer to TDS of topcoat or clear being used
Application Conditions - Temperature	60°F (16°C) Minimum 100°F (38°C) Maximum
Application Conditions - Relative Humidity	85% maximum 5° above dew point

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**Important:** The contents of this package may have to be blended with other components before the product can be used. Before opening the packages, be sure you understand the warning messages on the labels of all components, since the mixture will have the hazards of all its parts. Improper spray technique may result in a hazardous condition. Follow spray equipment manufacturer's instructions to prevent personal injury or fire. Follow directions for respirator use. Wear eye and skin protection. Observe all applicable precautions.

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**See Safety Data Sheet and Labels for additional safety information and handling instructions.**

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# 287112SP/04, 287113SP/04

**Suede Additives-Medium and Coarse**

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## Brushing and Rolling Additives

# 47444SP/04 Brushing/Rolling Additive 43621SP/04 Brushing Catalyst

Matthews brushing and rolling additives are designed to be mixed into conventional and low VOC\* Matthews Acrylic Polyurethane topcoats and clears.

These additives provide maximum leveling and flow characteristics when paint brush or roller application is preferred.

The special blend of ingredients allows more open time for brush workability and air release agents help alleviate bubble formation when rolling.

\*Excludes MAP-LV topcoats and MAP-LVC clears.



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### Compatible Surfaces:

**MAP Conventional and Low VOC Topcoats and Clearcoats can be brushed or rolled over properly prepared:**

6001SP/01 Polyester Primer Surfacer	274528SP/01 2.1 VOC Gray Epoxy Primer	Previously painted and cured finishes
6007SP/01 3.5 Gray Epoxy Primer	274530SP/01 2.1 VOC White Epoxy Primer	
274685SP/01 U Prime	274531SP/01 2.1 VOC Black Epoxy Primer	
274808SP/01 Black Epoxy Primer	LVU100/01 Ultra Low VOC Epoxy Primer	
274908SP/01 White Epoxy Primer		

### Associated Products:

**Matthews Acrylic Polyurethane Topcoats and Clearcoats (conventional and Low VOC)**

Refer to specific Technical Data Sheets (TDS) for associated products.

# 47444SP/04 & 43621SP/04

## Directions for Use

### Surface Preparation:

Substrate should be prepared according to Matthews Substrate Preparation Guide prior to topcoat application. It is necessary to prime all areas of bare substrate. Refer to specific primer TDS for mixing instructions.

Note: For detailed preparation, priming, and painting information, refer to MPC332 Matthews Brush & Roll Process for Field Repair.

### Mix Ratios for Conventional:

Mix Ratio for Brushing or Rolling (by volume)

Option 1:



MAP	43270SP/01 or /04	47444SP/04
Color/Clear	: Universal Catalyst	: Brushing/Rolling Additive
3 parts	: 1 part	: 1 part

Option 2 (slowest/most flow):



MAP	43621SP/01 or /04	47444SP/04
Color/Clear	: Brushing Catalyst	: Brushing/Rolling Additive
3 parts	: 1/2 part	: 1 part

- All components should be mixed thoroughly before using
- Strain material after mixing

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### Mix Ratios for SVOC and VOC:

Mix Ratio for Brushing or Rolling (by volume)



SVOC	283320SP/01 or /04	47444SP/04
Color/Clear	: SVOC Catalyst	: Brushing/Rolling Additive
3 parts	: 1 part	: 1 part



VOC	283800SP/01	47444SP/04
Clear	: VOC Catalyst	: Brushing/Rolling Additive
3 parts	: 1 part	: 1 part

- All components should be mixed thoroughly before using
- Strain material after mixing

### Pot Life:



**Pot Life:** 8 hours

Pot-life is the amount of time before spray viscosity doubles. These are estimates based on lab results at 50% relative humidity, 70°F/21°C—results will vary based on application conditions.

Note: mix no more product than can be used within pot life.

### Additives:



None

# 47444SP/04 & 43621SP/04

## Directions for Use

### Brushes & Rollers:



#### Rollers:

- Should be urethane-compatible foam, velour, woven polyester, mohair, or lambs wool. Other rollers may swell or dissolve.
- Examples:
  - 4" Whizz roller #34011 (yellow), #54011 (white w/ yellow/black stripe), #54060 (black), or #74011 (white and blue)
  - 4-1/2" Wooster roller #RR304 (white), #RR310 (green), or #RR311 (red)

#### Brushes:

- Use a china bristle or fine bristle nylon/polyester brush

### Application:



#### Apply:

Apply 1 - 2 coats, allowing proper flash time between coats\*, to achieve the recommended total dry film thickness. Apply coats as evenly as possible to provide a uniform appearance and coverage.

Brush or Roll from bottom to top, then top to bottom, using a 50% overlap.

**\*Allow first coat to dry to the touch before applying the second coat. Flash times will vary dependent upon film thickness, temperature, application, etc.**

Recommended Film Thickness:	Wet Film Thickness (WFT)	Per Coat	Total
		3.0 - 4.0 mils	6.0 - 8.0 mils
	Dry Film Thickness (DFT)	1.0 mil	2.0 mils

**Caution:** All 2-component crosslinking slows significantly at temperatures below 60°F or 16°C. Never spray or subject freshly painted coatings to these conditions or loss of gloss, decreased durability and improper curing can occur.

### Estimated Drying Times:



Air-Dry @ 50% Relative Humidity, 70°F/21°C  
Dry time will vary by temperature and humidity.  
Dry times will increase with lower temperatures.

Refer to specific product sheets for flash, tack and dry times of all products.

**Recoating:** Paint films cured over 24 hours should be cleaned, lightly dry scuff sanded with 320 - 400g by hand/machine or wet sanded with 600g, then cleaned again before recoating.

### Equipment Cleaning:

Clean equipment promptly with lacquer thinner or equivalent cleaning solvent.

**Note: Do not leave mixed material in equipment.**

### Technical Data:

#### VOC Information (conventional topcoats and clears)

VOC Actual RFU	4.47 - 5.17 lbs/gal
VOC Actual RFU	536 - 620 g/L
VOC Regulatory (less water less exempt) RFU	4.47 - 5.17 lbs/gal
VOC Regulatory (less water less exempt) RFU	536 - 620 g/L

#### VOC Information (VOC and SVOC topcoats and clears)

VOC Actual RFU	2.34 - 3.33 lbs/gal
VOC Actual RFU	280 - 399 g/L
VOC Regulatory (less water less exempt) RFU	3.34 - 3.42 lbs/gal
VOC Regulatory (less water less exempt) RFU	400 - 410 g/L

For complete VOC information, visit [MatthewsPaint.com](http://MatthewsPaint.com) > Quick Links > VOC Data

# 47444SP/04 & 43621SP/04

**Brushing/Rolling  
Additives**

**Important:** The contents of this package may have to be blended with other components before the product can be used. Before opening the packages, be sure you understand the warning messages on the labels of all components, since the mixture will have the hazards of all its parts. Improper spray technique may result in a hazardous condition. Follow spray equipment manufacturer's instructions to prevent personal injury or fire. Follow directions for respirator use. Wear eye and skin protection. Observe all applicable precautions.

**See Safety Data Sheet and Labels for additional safety information and handling instructions.**

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**Ultra Low VOC Brush & Roll Reducer**

# MAP-LVRB51/01\*

MAP-LVRB51/01\* Ultra Low VOC Brush & Roll Reducer is designed to be mixed in Ultra Low VOC Acrylic Polyurethane color or clearcoats to provide maximum leveling and flow characteristics when brush and roll application is preferred.

This product allows more open time for brush and roll workability.

MAP-LVRB51/01\* meets the most stringent VOC regulations.

\*Also available in /04



**Features:**

**Benefits:**

Provides maximum flow .....Ideal for brush and roll applications  
 Zero VOC .....Meets the most stringent VOC regulations

**Compatible Surfaces:**

**MAP Ultra Low VOC Topcoats and Clearcoats can be brushed or rolled over properly prepared:**

- |                                     |  |
|-------------------------------------|--|
| 6001SP/01 Polyester Primer Surfacer | 274528SP/01 2.1 VOC Gray Epoxy Primer  |
| 6007SP/01 3.5 Gray Epoxy Primer     | 274530SP/01 2.1 VOC White Epoxy Primer |
| 274685SP/01 U Prime                 | 274531SP/01 2.1 VOC Black Epoxy Primer |
| 274808SP/01 Black Epoxy Primer      | LVU100/01 Ultra Low VOC Epoxy Primer   |
| 274908SP/01 White Epoxy Primer      | Previously painted and cured finishes  |

**Associated Products:**

**MAP LV Topcoats and Clearcoats**

- MAP-LVS (solid colors only)
- MAP-LVG (solid colors only)
- MAP-LVC208/01
- MAP-LVC228/01
- MAP-LVC238/01

**Catalyst**

- MAP-LVX270/01\* Catalyst
- \*Also available in /04

# MAP-LVRB51/01\*

## Directions for Use

### Surface Preparation:

Substrate should be prepared according to Matthews Substrate Preparation Guide prior to topcoat application. It is necessary to prime all areas of bare substrate. Refer to specific primer TDS for mixing instructions.

Note: For detailed preparation, priming, and painting information, refer to MPC332 Matthews Brush & Roll Process for Field Repair.

### Mix Ratio:



Mix Ratio for Spraying (by volume)

MAP-LV color/clear : MAP-LVX270/01 or /04 : MAP-LVRB51/01\*  
3 parts : 1 part : 1 part

- All components should be mixed thoroughly before using
- Strain material after mixing



### Pot Life:

MAP-LVG, LVC208/01 with MAP-LVRB51/01\* 1 hour

MAP-LVS, LVC228/01, LVC238/01 with MAP-LVRB51/01\* 2 hours

Pot-life is the amount of time before spray viscosity doubles. These are estimates based on lab results at 50% relative humidity, 70°F/21°C—results will vary based on application conditions.

Note: mix no more product than can be used within pot life.

### Additives:



None

### Brushes & Rollers:



#### Rollers:

- Should be urethane-compatible foam, velour, woven polyester, mohair, or lambs wool. Other rollers may swell or dissolve.

#### Examples:

- 4" Whizz roller #34011 (yellow), #54011 (white w/ yellow/black stripe), #54060 (black), or #74011 (white and blue)

- 4-1/2" Wooster roller #RR304 (white), #RR310 (green), or #RR311 (red)

#### Brushes:

- Use a china bristle or fine bristle nylon/polyester brush



\*Also available in /04

# MAP-LVRB51/01\*

## Directions for Use

### Application:



#### Apply:

Apply 1 - 2 coats, allowing proper flash time between coats\*, to achieve the recommended total dry film thickness. Apply coats as evenly as possible to provide a uniform appearance and coverage.

Brush or Roll from bottom to top, then top to bottom, using a 50% overlap.

\*Allow first coat to dry to the touch before applying the second coat. Flash times will vary dependent upon film thickness, temperature, application, etc.

Recommended Film Thickness:	Wet Film Thickness (WFT)	Per Coat	Total
		2.0 - 3.0 mils	4.0 - 6.0 mils
	Dry Film Thickness (DFT)	1.0 mil	2.0 mils

**Caution:** All 2-component crosslinking slows significantly at temperatures below 60°F or 16°C. Never spray or subject freshly painted coatings to these conditions or loss of gloss, decreased durability and improper curing can occur.

### Estimated Drying Times:



Air-Dry @ 50% Relative Humidity, 70°F/21°C  
Dry time will vary by temperature and humidity.  
Dry times will increase with lower temperatures.

Refer to specific product sheets for flash, tack and dry times of all products.

**Recoating:** Paint films cured over 24 hours should be cleaned, lightly dry scuff sanded with 320 – 400g by hand/machine or wet sanded with 600g, then cleaned again before recoating.

### Equipment Cleaning:

Clean equipment promptly with lacquer thinner or equivalent cleaning solvent.

**Note: Do not leave mixed material in equipment.**

### Technical Data:

#### VOC Information

VOC Packaged	0.0 lbs/gal
VOC Packaged	0 g/L

For complete VOC information, visit [MatthewsPaint.com](http://MatthewsPaint.com) > Quick Links > VOC Data

\*Also available in /04

# MAP-LVRB51/01\*

## Ultra Low VOC Brush & Roll Reducer

**Important:** The contents of this package may have to be blended with other components before the product can be used. Before opening the packages, be sure you understand the warning messages on the labels of all components, since the mixture will have the hazards of all its parts. Improper spray technique may result in a hazardous condition. Follow spray equipment manufacturer's instructions to prevent personal injury or fire. Follow directions for respirator use. Wear eye and skin protection. Observe all applicable precautions.

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\*Also available in /04



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## Flex Additive

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# 47474SP/04

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Matthews Flex Additive 47474SP/04 is designed to be used in conventional Matthews Acrylic Polyurethane topcoats.

47474SP/04 can also be used in SVOC topcoats as well as VOC and SVOC clears if VOC is not a concern. Due to the flexible nature of MAP-LV topcoats and clears, flex additive is not necessary.

47474SP/04 provides flexibility to the coating which will allow pliable substrates to withstand flexing and impact during fabrication or service.



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### Compatible Surfaces:

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Flexible Matthews Topcoats and Clears may be applied over properly prepared flexible substrates such as:

- Acrylic
- Cooley
- Flexible Faces
- Panaflex
- Polycarbonate
- Trim Cap
- Vinyl

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### Associated Products:

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Any Matthews Conventional or Low VOC colors (including associated catalysts and reducers)  
Any Matthews Conventional or Low VOC clears (including associated catalysts and reducers)

**\*NOTE: 47474SP/04 Flex Additive is not to be used in Matthews Ultra Low VOC topcoats or clears.**

# 47474SP/04

## Directions for Use

**Surface Preparation:** Substrate should be prepared according to Matthews Substrate Preparation Guide prior to topcoat application.

**Mix Ratio:**



Mix Ratio for Spraying (by volume)

Any Matthews  
SOA, N, or SV color/clear : Catalyst\* : Reducer\* + 47474SP/04  
3 parts : 1 part : 1 part + 1/2 part

\*Refer to Technical Data Sheet (TDS) for Matthews Topcoat or Clear being used.

All components should be mixed thoroughly before using.  
Strain material after mixing.



**Pot Life:** 8 hours

Pot-life is the amount of time before spray viscosity doubles. These are estimates based on lab results at 50% relative humidity, 70°F/21°C—results will vary based on application conditions and reducer selection.

Note: mix no more product than can be used within pot life.

**Additives:**



None

**Spray Set Up:**



Air Pressure: Conventional: 40 - 50 psi at the gun\*  
HVLV: 10 psi at the cap\*

\* Refer to spray gun manufacturer recommendations for inlet pressure.



Pressure Pot Fluid Delivery: 8 - 12 Fluid Ounces per Minute



Gun Set Up: Siphon Feed: 1.2 - 1.4 mm 0.047 - 0.055 fluid tip  
HVLV: 1.2 - 1.4 mm 0.047 - 0.055 fluid tip  
Pressure Pot: 1.0 - 1.2 mm 0.039 - 0.047 fluid tip

# 47474SP/04

## Directions for Use

### Application:



#### Apply:

Apply two full wet coats, allowing proper flash time\* between coats. Apply additional coats as necessary to achieve total dry film thickness and/or metallic control.

\*Flash times will vary dependent upon film thickness, temperature, spray gun set-up, application, etc.

Recommended		Per Coat	Total
Film Thickness:	Wet Film Thickness (WFT)	3.0 - 4.0 mils	6.0 - 8.0 mils
	Dry Film Thickness (DFT)	1.0 mil	2.0 mils

**Caution:** All 2-component crosslinking slows significantly at temperatures below 60°F or 16°C. Never spray or subject freshly painted coatings to these conditions or loss of gloss, decreased durability and improper curing can occur.

### Estimated Drying Times\*:



Air-Dry @ 50% Relative Humidity, 70°F/21°C

Dust Free	15 minutes
Set to Touch	30 minutes - 1 hour
Dry to Handle	1.5 - 2 hours
Tape Time	16 hours
Vinyl Application	48 hours
Reflective Vinyl Application	96 hours

**Recoating:** Paint films cured over 24 hours should be cleaned, lightly dry scuff sanded with 320 - 400g by hand/machine or wet sanded with 600g, then cleaned again before recoating.

### Equipment Cleaning:

Clean equipment promptly with lacquer thinner or equivalent cleaning solvent.

**Note: Do not leave mixed material in equipment.**

### Technical Data:

#### VOC Information (conventional topcoats and clears)

VOC Actual RTS	4.89 - 5.34 lbs/gal
VOC Actual RTS	586 - 640 g/L
VOC Regulatory (less water less exempt) RTS	4.89 - 5.34 lbs/gal
VOC Regulatory (less water less exempt) RTS	586 - 640 g/L

#### 3.5 VOC Information (VOC and SVOC topcoats and clears with Low VOC reducers)

VOC Actual RTS	2.03 - 2.94 lbs/gal
VOC Actual RTS	243 - 352 g/L
VOC Regulatory (less water less exempt) RTS	3.23 - 3.25 lbs/gal
VOC Regulatory (less water less exempt) RTS	387 - 389 g/L

#### 3.5 VOC Information (VOC and SVOC topcoats and clears with Exempt reducers)

VOC Actual RTS	1.45 - 2.35 lbs/gal
VOC Actual RTS	174 - 282 g/L
VOC Regulatory (less water less exempt) RTS	2.72 - 2.87 lbs/gal
VOC Regulatory (less water less exempt) RTS	326 - 344 g/L

For complete VOC information, visit [MatthewsPaint.com](http://MatthewsPaint.com) > Quick Links > VOC Data

#### Performance Characteristics

Volume solids (RTS)	27 - 48.3%
Theoretical Coverage (1 mil @ 100% transfer efficiency)	433 - 774 sq.ft./RTS gal
Application Conditions - Temperature	100°F (38°C) Maximum
Application Conditions - Relative Humidity	85% maximum 5° above dew point

# 47474SP/04

**Flex Additive**

**Important:** The contents of this package may have to be blended with other components before the product can be used. Before opening the packages, be sure you understand the warning messages on the labels of all components, since the mixture will have the hazards of all its parts. Improper spray technique may result in a hazardous condition. Follow spray equipment manufacturer's instructions to prevent personal injury or fire. Follow directions for respirator use. Wear eye and skin protection. Observe all applicable precautions.

**See Safety Data Sheet and Labels for additional safety information and handling instructions.**

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# Specialty Products

## Technical Data Sheets

281500SP/01 High Reflective White .....	299-302
Lacryl 400 Series Translucent Spray Paint .....	303-306
Lacryl 800 Series Translucent Screen Paint .....	307-310
Sign Strip Sprayable, Strippable Coating .....	311-314
Booth Strip Water-based Strippable Plastic Film .....	315-318








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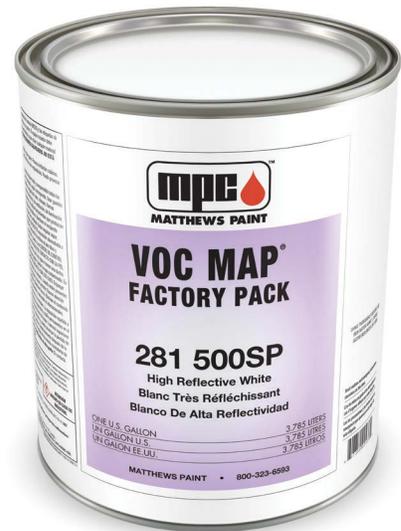
**High Reflective White**

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# 281500SP/01

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Matthews 281500SP/01 High Reflective White is a single component spray-applied coating designed for use on the interior surfaces of channel letters and sign cans to enhance brightness and eliminate lighting “hot spots”.




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**Features:**

**Benefits:**

Low VOC technology .....	Environmentally friendly; Complies with most stringent VOC requirements
Acrylic resin system .....	Excellent adhesion to properly cleaned bare aluminum and steel; Will not yellow
Ready to spray as packaged.....	No mixing required; No pot life
Reflective coating .....	Enhances brightness and eliminates lighting “hot spots”

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**Compatible Surfaces:**

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**281500SP/01 HR White may be applied over properly cleaned:**

- Steel
- Aluminum

# 281500SP/01

## Directions for Use

### Surface Preparation:



- Apply a generous amount of 45330SP/01 Speed Prep or 6405SP/01 Low VOC Cleaner to the surface with a clean cloth or a hand held spray bottle and wipe the surface until dry.
- The initial application will float contaminants to the surface, and the second wipe using a separate clean dry cloth, will remove contaminants.
- For maximum results, wipe the surface dry while it is still wet, using a clean white cloth in one direction. This will eliminate the smearing of contaminants. Be sure to change rags frequently.
- Never let the cleaner dry on the surface.

### Mix Ratio:



- Must be shaken or stirred prior to use
- Strain material after mixing

### Additives:



None

### Spray Set Up:



Air Pressure: Conventional: 40 - 50 psi at the gun\*  
HVLP: 10 psi at the cap\*

\* Refer to spray gun manufacturer recommendations for inlet pressure.



Pressure Pot Fluid Delivery: 8 - 12 Fluid Ounces per Minute



Gun Set Up: Siphon Feed: 1.6 - 1.8 mm 0.062 - 0.070 fluid tip  
HVLP: 1.6 - 1.8 mm 0.062 - 0.070 fluid tip  
Pressure Pot: 1.4 - 1.8 mm 0.055 - 0.070 fluid tip

### Application:



Apply: Apply two wet coats, allowing proper flash time\* between coats. Apply additional coats as necessary to achieve total dry film thickness.  
\*Flash times will vary dependent upon film thickness, temperature, spray gun set-up, application, etc.

Recommended  
Film Thickness:

	Per Coat	Total
Wet Film Thickness (WFT)	3.4 - 4.5 mils	6.8 - 9 mils
Dry Film Thickness (DFT)	0.8 - 1 mils	1.5 - 2 mils

**Note:** The product was designed to have a slight orange peel effect when dry for a better and even light reflection.

# 281500SP/01

## Directions for Use

### Estimated Drying Times:



Air-Dry @ 50% Relative Humidity, 70°F/21°C  
Dry to Touch 10 - 15 minutes

### Equipment Cleaning:

Clean equipment promptly with lacquer thinner or equivalent cleaning solvent.  
**Note: Do not leave mixed material in equipment.**

### Technical Data:

#### VOC Information

VOC Actual RTS	0.04 lbs/gal
VOC Actual RTS	4 g/L
VOC Regulatory (less water less exempt) RTS	0.15 lbs/gal
VOC Regulatory (less water less exempt) RTS	18 g/L

For complete VOC information, visit [MatthewsPaint.com](http://MatthewsPaint.com) > Quick Links > VOC Data

#### Performance Characteristics

Volume solids (RTS)	22.3%
Theoretical Coverage (1 mil @ 100% transfer efficiency)	358 sq.ft./RTS gal
Application Conditions - Temperature	60°F (16°C) Minimum 100°F (38°C) Maximum
Application Conditions - Relative Humidity	85% maximum 5° above dew point

**Important:** The contents of this package may have to be blended with other components before the product can be used. Before opening the packages, be sure you understand the warning messages on the labels of all components, since the mixture will have the hazards of all its parts. Improper spray technique may result in a hazardous condition. Follow spray equipment manufacturer's instructions to prevent personal injury or fire. Follow directions for respirator use. Wear eye and skin protection. Observe all applicable precautions.

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# 281500SP/01

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High Reflective White

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## Translucent Spray Paint

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# Lacryl<sup>®</sup> 400 Series

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Lacryl 400 Series is a translucent air dry acrylic lacquer for the plastic sign industry. This translucent coating can be air sprayed to decorate back lit formed faces. Second surface application provides the durability and fade resistance required for translucent sign coatings. Lacryl 400 can be matched to most popular brands.



303

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### Compatible Surfaces:

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**Lacryl 400 Series may be applied over properly prepared:**

Polycarbonate  
Acrylics

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### Associated Products:

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#### Thinner

ZZ205/01\* General Purpose Thinner  
ZZ215/01 Slow Thinner

\*Also available in /PL and /DR

# Lacryl<sup>®</sup> 400 Series

## Directions for Use

### Surface Preparation:

**Cleaning of substrate:** 6428SP/01 quickly removes troublesome silicones and mold release agents from the substrate to be painted. Apply with a pump sprayer or clean white cloth\*, wipe in one direction only, and immediately dry with a clean, dry cloth. If sanding is required, use 6428SP/01 before and after.

**\*Caution:** Do not apply over sensitive substrates such as fresh topcoats and/or primers as softening may occur.

**Removal of static charge:** Using a spray gun or mist bottle, apply a mist coat of 6428SP/01 on the surface to be painted. This will help reduce static electricity on all treated surfaces, minimizing the attraction of dust & dirt particles.

### Mix Ratio:



Mix Ratio for Spraying (by volume)

Lacryl 400	Thinner*
1 part	1 part**

\*Choose Lacryl thinner for shop temperature:

- ZZ205/01\*\*\* General Purpose Thinner
- ZZ215/01 Slow Thinner

\*\*To adjust viscosity and color saturation, some colors, such as white, may require additional thinner (1:2 is acceptable).

\*\*\*Also available in /PL and /DR

NOTE: Some colors, such as blues and greens, are prone to an uneven appearance.

To make the color more translucent, 10-100% of L490/01 or L491/01 clear can be added. Then thin as normal. Additional coats may be required.

### Additives:



None required, but the following may be used for specific application or project needs:

- 490/01 Clear Gloss
- 491/01 Clear Matte

### Spray Set Up:



Air Pressure:	Conventional:	40 - 50 psi at the gun*
	HVLP:	10 psi at the cap*

\* Refer to spray gun manufacturer recommendations for inlet pressure.



Pressure Pot Fluid Delivery:	8 - 12 Fluid Ounces per Minute
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Gun Set Up:	Siphon Feed:	1.3 - 1.5 mm 0.051 - 0.059 fluid tip
	HVLP:	1.3 - 1.5 mm 0.051 - 0.059 fluid tip
	Pressure Pot:	1.0 - 1.2 mm 0.039 - 0.047 fluid tip

# Lacryl<sup>®</sup> 400 Series

## Directions for Use

### Application:



- Apply when ambient air, product and substrate temperature are above 60°F/16°C and at least 5°F/3°C above dew point.
- To ensure uniform application, face should be placed in front of a light bank before applying Lacryl 400.
- To remove static charge, lightly mist surface with Matthews 6428SP/01 Plastic Prep.
- Stir Lacryl thoroughly before use and agitate often during use.
- Using a 50 to 75% overlap, apply several coats with a gun distance of 8-10 inches from the surface.
- Allow proper flash time between coats.\*
- Vary the direction of the passes (i.e. apply some horizontally, some vertically, and some diagonally). This is to make sure that a uniform coating of paint is applied.
- Build up coats to desired color gradually, to avoid over-application. If paint is not applied gradually and uniformly the result could be blotchy, uneven, or off-color.
- After desired color is achieved, apply white backer to eliminate “hot spots” in the finished product.

\*Flash times will vary dependent upon film thickness, temperature, solvent selection, spray gun set-up, application, etc.

### Estimated Drying Times:



Air-Dry @ 50% Relative Humidity, 70°F/21°C

Dry to touch: 30 minutes

Dry to handle: 1 hour

Dry to remask using Sign Strip: 1 to 1 1/2 hours

Dry time before exposure to weather: 24 hours

### Equipment Cleaning:

Use ZZ205/01\* Thinner or other suitable solvent for cleaning spray equipment.

Use ZZ206/01\* Cleaner Remover for removal of overspray and paint.

**Note: Do not leave mixed material in equipment.**

\*Also available in /PL and /DR

### Technical Data:

#### VOC Information

VOC Actual RTS 5.64 - 6.29 lbs/gal

VOC Actual RTS 676 - 754 g/L

VOC Regulatory (less water less exempt) RTS 5.72 - 6.35 lbs/gal

VOC Regulatory (less water less exempt) RTS 682 - 761 g/L

Lacryl 403 White used as standard.

For complete VOC information, visit [MatthewsPaint.com](http://MatthewsPaint.com) > Quick Links > VOC Data

#### Performance Characteristics

Volume solids (RTS) 33% by weight (403 white)

Viscosity 35 ± 3 seconds #2 Zahn cup

Theoretical Coverage (1 mil @ 100% transfer efficiency) 350 sq.ft./RTS gal

Application Conditions - Temperature 60°F (16°C) Minimum

100°F (38°C) Maximum

Application Conditions - Relative Humidity 85% maximum 5° above dew point

# Lacryl<sup>®</sup> 400 Series

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**Important:** The contents of this package may have to be blended with other components before the product can be used. Before opening the packages, be sure you understand the warning messages on the labels of all components, since the mixture will have the hazards of all its parts. Improper spray technique may result in a hazardous condition. Follow spray equipment manufacturer's instructions to prevent personal injury or fire. Follow directions for respirator use. Wear eye and skin protection. Observe all applicable precautions.

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**See Safety Data Sheet and Labels for additional safety information and handling instructions.**

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## Translucent Screen Paint

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# Lacryl<sup>®</sup> 800 Series

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The 800 Series products are formulated for higher volume, screen application.

Screening with Lacryl 800 reduces cost and labor by providing high coverage and less waste when compared to other options. In addition, it lasts longer, has a greater depth of image and has no seams to show when illuminated.

Over 30 Standard Colors and over 3000 intermix colors.



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### Compatible Surfaces:

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Lacryl 800 Series may be applied over properly prepared:

Polycarbonate  
Acrylics

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### Associated Products:

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#### Thinner

ZZ208/01\* Thinner  
ZZ218/01 Retarder

\*Also available in /PL

# Lacryl<sup>®</sup> 800 Series

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## Directions for Use

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### Surface Preparation:

**Cleaning of substrate:** 6428SP/01 quickly removes troublesome silicones and mold release agents from the substrate to be painted. Apply with a pump sprayer or clean white cloth\*, wipe in one direction only, and immediately dry with a clean, dry cloth. If sanding is required, use 6428SP/01 before and after.

**\*Caution:** Do not apply over sensitive substrates such as fresh topcoats and/or primers as softening may occur.

**Removal of static charge:** Using a spray gun or mist bottle, apply a mist coat of 6428SP/01 on the surface to be painted. This will help reduce static electricity on all treated surfaces, minimizing the attraction of dust & dirt particles.

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### Mix Ratio:



- Lacryl 800 is ready to use as packaged
- Must be shaken or stirred prior to use
- Strain material before application

Lacryl 800 has been developed so that it can be screened directly from the container without thinning. Under certain circumstances, adding up to 40 ounces of ZZ208/01 per gallon may be necessary:

- When using larger screens
- To reduce color intensity or saturation

In high heat conditions, 2-4 ounces of ZZ218/01 Retarder can be added.

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### Additives:



None

# Lacryl<sup>®</sup> 800 Series

## Directions for Use

### Application:

#### Application Methods:

- Hand-drawn squeegee
- Semi-automatic tables
- Fully automatic tables

Apply when ambient air, product and substrate temperature are above 60°F/16°C and at least 5°F/3°C above dew point.

To remove static charge, lightly mist surface with Matthews 6428SP/01 Plastic Prep.

Stir Lacryl thoroughly before use and agitate often during use.

### Estimated Drying Times:



Air-Dry @ 50% Relative Humidity, 70°F/21°C

Dry time before exposure to weather: 24 hours

Can be force dried up to 150°F/65°C

### Equipment Cleaning:

Use ZZ205/01\* or ZZ208/01\*\*Thinner or other suitable solvent for cleaning spray equipment.  
Use ZZ206/01\* Cleaner Remover for removal of overspray and paint.

**Note: Do not leave mixed material in equipment.**

\*Also available in /PL and /DR

\*\*Also available in /PL

### Technical Data:

#### VOC Information

VOC Actual	4.63 lbs/gal
VOC Actual	555 g/L
VOC Regulatory (less water less exempt)	4.63 lbs/gal
VOC Regulatory (less water less exempt)	555 g/L

#### Performance Characteristics

Solids	54% by weight
Theoretical Coverage (1 mil @ 100% transfer efficiency)	1,600 sq.ft./gal
Application Conditions - Temperature	60°F (16°C) Minimum 100°F (38°C) Maximum
Application Conditions - Relative Humidity	85% maximum 5° above dew point

Lacryl 801 White used as standard.

For complete VOC information, visit [MatthewsPaint.com](http://MatthewsPaint.com) > Quick Links > VOC Data

# Lacryl<sup>®</sup> 800 Series

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**See Safety Data Sheet and Labels for additional safety information and handling instructions.**

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## Sprayable, Strippable Coating

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# Sign Strip

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Sign Strip is a water-based sprayable, strippable coating formulated for use as a mask during the painting of plastic and metal signs for multi-color jobs.

Sign Strip can also be used to protect surfaces against paint overspray.

**Important: Do not allow to freeze!**



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### Compatible Surfaces:

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Can be used on most painted (fully cured) or bare substrates\*.

\*Always test substrate for compatibility

# Sign Strip

## Directions for Use

**Important Note:** Never store outdoors in any season. Do not allow it to sit in direct sun and never store where it can freeze.

**Surface Preparation:** Surface should be clean and dry before applying Sign Strip. Freshly painted surfaces must be fully dried or cured.

**Mix Ratio:** None, Ready to Spray as packaged



**Spray Set Up:**



**Air Pressure:** Conventional: 40 - 50 psi at the gun\*  
HVLV: 10 psi at the cap\*  
*\* Refer to spray gun manufacturer recommendations for inlet pressure.*



**Pressure Pot Fluid Delivery:** 8 - 12 Fluid Ounces per Minute



**Gun Set Up:** Siphon Feed: 2.0 - 2.5 mm 0.078 - 0.098 fluid tip  
HVLV: 2.0 - 2.5 mm 0.078 - 0.098 fluid tip  
Pressure Pot\*: 1.4 - 1.8 mm 0.055 - 0.070 fluid tip  
*\* Note: Do not use galvanized pressure pots, containers or fittings.*

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**Direct from Drum (airless or air-assisted airless):**

Where Sign Strip is used in quantity, drawing the compound directly from the drum to the spray gun will eliminate both labor and material losses in transferring the Sign Strip to other containers.

**Airless Spray Equipment:** If airless spray equipment is used, the airless pump can be mounted on the spray booth wall and a suction hose placed in the Sign Strip; or the airless pump can be mounted on a drum cover and immersed in the Sign Strip.

**Air-Assisted Airless Spray Equipment:** If air-assisted airless equipment is used, a 3:1 ratio fluid transfer pump mounted on a drum cover and immersed in the Sign Strip, will pump the material directly to the spray gun.

Either system eliminates the need for pressure pots or other containers. In all cases, it is advisable, but not necessary, to keep the Sign Strip under slow agitation during spraying. Drum covers with air motor agitators are available and serve two purposes - they provide a constant viscosity Sign Strip and keep foreign matter from falling into the compound.

# Sign Strip

## Directions for Use

### Application:



Apply:

Apply three to six medium coats, allowing proper flash time\* between coats.

Apply additional coats as necessary to achieve total dry film thickness.

\*Flash times will vary dependent upon film thickness, temperature, spray gun set-up, application, etc.

Recommended Film Thickness: Dry Film Thickness (DFT) 4 - 6 mils\*

\*To ensure proper removal of Sign Strip, apply the minimum film build.

### Estimated Drying Times:



**Air-Dry** @ 50% Relative Humidity, 70°F/21°C

Allow Sign Strip to air dry for 6 - 8 hours before cutting or peeling

**Force Dry** after 10 minute purge @ 120°F/49°C for 30 - 40 minutes\*

Sign Strip can be cut or peeled immediately following cool down

\*Exceeding the temperature and/or time when force drying could cause Sign Strip to crack or become difficult to peel and release.

### Factory Pack Colors:

- Z5727/01\* Sign Strip Blue
- Z5741/01\*\* Sign Strip Blue II
- Z6024/PL\*\*\* Sign Strip Blue (NBSS)

\*Also available in /PL and /DR

\*\*Also available in /PL, /DR, VL/PL and VL/DR

\*\*\*Also available in /DR

### Equipment Cleaning:

Clean equipment with water.

### Technical Data:

VOC	0.22 lbs/gal
Solids	30% ± 2
Theoretical Coverage	Approximately 140 sq ft/gal per 3 mil dry film thickness.

# Sign Strip

**Sprayable, Strippable Coating**

**Important:** This is a water base compound and should be protected from freezing. Recommended storage temperature is 55° F to 90° F. Before opening the packages, be sure you understand the warning messages on the labels of all components, since the mixture will have the hazards of all its parts. Improper spray technique may result in a hazardous condition. Follow spray equipment manufacturer's instructions to prevent personal injury or fire. Follow directions for respirator use. Wear eye and skin protection. Observe all applicable precautions.

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**See Safety Data Sheet and Labels for additional safety information and handling instructions.**

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**Water-based Strippable Plastic Film**

# Booth Strip

Booth Strip (Z5955/PL) is a water-based compound designed to be spray-applied on paint booth walls to collect overspray. It air dries to form a tough white plastic film that is easily removed during regular maintenance cleanup.

Booth Strip is designed to adhere to both bare metal and painted surfaces.

For best results Booth Strip should be applied using standard airless spray equipment.

**Important: Do not allow to freeze!**



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**Features:**

**Benefits:**

- Ultra low VOC technology.....Environmentally friendly; Complies with most stringent VOC requirements
- Tack-free in one hour.....Fast drying
- Water-based.....Easy clean-up of equipment
- White color.....Reflectivity and clean appearance
- Easy removal.....Peelable with 3 to 4 mils of dry film

**Compatible Surfaces:**

Can be applied to bare metal and painted surfaces

# Booth Strip

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## Directions for Use

**Important Note:** Never store outdoors in any season. Do not allow it to sit in direct sun and never store where it can freeze.

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**Surface Preparation:** Surface should be clean and dry before applying Booth Strip. Freshly painted surfaces must be fully dried or cured.

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**Mix Ratio:** None, Ready to Spray as packaged



**Application:** Apply: An application of 7 to 9 wet mils can be applied in one pass using air-less spray equipment with a good atomizing head and will result in the desired dry film thickness of 3 to 4 mils.



**Caution:** low film builds can result in difficult removal of Booth Strip.

---

**Estimated Drying Times:** Air-Dry @ 50% Relative Humidity, 70°F/21°C  
Tack free in 1 hour\*  
Allow Booth Strip to air dry for 6 - 8 hours\* before cutting or peeling



\*Drying time may be shortened with air movement or by increased temperature.

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**Equipment Cleaning:** Clean equipment immediately with water.

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<b>Technical Data:</b>	VOC Actual RTS	0.07 lbs/gal
	VOC Actual RTS	8 g/L
	VOC Regulatory (less water less exempt) RTS	0.24 lbs/gal
	VOC Regulatory (less water less exempt) RTS	28 g/L
	Theoretical Coverage (1 mil @ 100% transfer efficiency)	450 sq.ft.

# Booth Strip

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**Important:** This is a water base compound and should be protected from freezing. Recommended storage temperature is 55° F to 90° F. Before opening the packages, be sure you understand the warning messages on the labels of all components, since the mixture will have the hazards of all its parts. Improper spray technique may result in a hazardous condition. Follow spray equipment manufacturer's instructions to prevent personal injury or fire. Follow directions for respirator use. Wear eye and skin protection. Observe all applicable precautions.

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# Booth Strip

Water-based Strippable Plastic Film

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# Reference



# Matthews Online Resources

Resources available at [www.matthewspaint.com](http://www.matthewspaint.com)

Resource	Location / Instructions
Additives	<a href="#">Products</a> > Additives > MPC Logo
Clean a Sign	<a href="#">Fabricators/Distributors</a> > Application > How To > Clean a Sign
Clear Coat Sales Sheet	<a href="#">Fabricators/Distributors</a> > Company Literature > Clears: Matthew Clearcoats Sales Sheet
Color Formula Retrieval	<a href="#">Fabricators/Distributors</a> > Color Resources > Online Color Formula Retrieval
Color Selector (PDF)	<a href="#">Fabricators/Distributors</a> > Color Resources > Color Selector
Distributor Locator	<a href="#">Where to Buy</a> > Enter Zip, Select Brand, Choose Distance, and Submit Form
Factory Pack Sales Sheet	<a href="#">Fabricators/Distributors</a> > Company Literature > Topcoats: Factory Packs Sales Sheet
Formula Retrieval Instructions	<a href="#">Fabricators/Distributors</a> > Color Resources > Online Color Formula Retrieval > Download PDF of Instructions
Graffiti Removal	<a href="#">Fabricators/Distributors</a> > Application > How To > Remove Graffiti
Mixing System Setup	<a href="#">Fabricators/Distributors</a> > Application > Mixing Station > PDFs of Intermix System Setup
Product Shelf Life	<a href="#">Products</a> > Product Shelf Life
Quick Product Reference Guide	<a href="#">Fabricators/Distributors</a> > Company Literature > Complete Matthews Paint System: Quick Product Reference Guide
Safety Data Sheets	<a href="#">Fabricators/Distributors</a> > Application > Safety Data Sheets
SOC Chip Search	<a href="#">Fabricators/Distributors</a> > Color Resources > SOC Chip Search
SOC CMYK & RGB Values	<a href="#">Fabricators/Distributors</a> > Color Resources > Spectrum of Color > SOC CMYK & RGB Values
Substrate Guides	<a href="#">Fabricators/Distributors</a> > Application > Substrate Preparation Guides
Technical Data Sheets	<a href="#">Products</a> > Technical Data Sheets > MPC Logo
Training Information	<a href="#">Fabricators/Distributors</a> > Training > Download Class Schedule or Register for Training Class Now
Training Videos	<a href="#">Fabricators/Distributors</a> > How To Videos
VOC Information	<a href="#">Fabricators/Distributors</a> > Environmental Solutions > VOC Data



# Best Practices in the Mix Room

## Mixing Bank

- Initial power-up of mixing banks should agitate all cans for 30 minutes.
- Then repeat throughout the day or at least 3 times per day for 15 minute intervals.
- If any lubrication to the mixing bank is required, 'castor' or 'mineral oil' should be used since they do not cause fisheyes.
- For especially hot/humid climates, keep the mix room as cool as possible to help keep the toners from drying out. Once the toner loses too much solvent its weight changes and can possibly compromise the color match.

## Primers, Toners and Clears

- Store backup cans upside down to avoid settling.
- New cans should be placed on the shaker 15 minutes before placing on the mixing bank.
- Matthews does not recommend POUR OFFS. Gallon toners are not to be poured off into a quart container for use.
- Check cans for damage or leaking. Bent cans may not properly fit on to mixing bank and prevent proper agitation.
- Store mixing containers (cups, cans, etc.) upside down to prevent dust and dirt from collecting in the can before use.
- Keep agitator lids clean. This ensures an airtight seal so that solvent loss and contamination are minimal. The 'mouth' of the mixing lid should be wiped off after each use.

## Mixing Color

- Check your mixing lids for connection of the paddles with the paint can. Mixing bases that have not agitated properly can lead to mismatched colors.
- Newly mixed color formulas should be placed on a shaker for 20 minutes—especially when using Amazing Pearls, which are packaged in dry form.
- Be careful to pour the toner into the container and not on the lip of the can. If it doesn't get into the container, it won't be part of the mix.
- If you must leave the mixing area for a brief time, place a lid over your mix container to prevent contamination.
- If re-using a mixing container, make sure all residues from previous mixing are cleaned out. Residual paint can throw off a formula.
- Use only Matthews approved mixing cups. However a metal can is recommended over the use of a plastic mixing cup because the color **MUST** be put on the shaker to ensure a uniform mix.
- Do not use a mixing stick in a container with tapered sides.
- When reducing products, do not "guess" the amount when you are mixing. Use a mixing cup or mixing stick.
- When tinting, do not substitute toners. Follow what is in the formula.



# Mixing Matthews Paint Products

The two most common methods for mixing Matthews paint products are a Mixing Cup or a Mixing Stick:

### Using a Matthews Mixing Cup

1. Thoroughly agitate the paint or stir the mixed color.
2. Locate the "3:1:1" measurement ratio grid printed on the cup.
3. In the "3:1:1" ratio grid, choose the number that represents the volume of paint you need. We will use "4" in our example. (See Figure 1)
4. Pour the paint into the cup up to the "4" in the left column.
5. Pour the catalyst into the cup up to the "4" in the middle column.
6. Pour the reducer into the cup up to the "4" in the right column.
7. Optional: Add accelerator (using separate accelerator cup) to the specific volume indicated on the product's Technical Data Sheet (TDS).
8. Stir the properly measured mixture for 60 seconds or until you can visually see that all ingredients are thoroughly mixed.



3 : 1 : 1		
		7
		6
	7	5
	6	4
7	5	4
6	4	3
5	3	2
4	2	1
3	1	
2		
1		

Figure 1  
Yellow = Paint  
Red = Catalyst  
Blue = Reducer

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• A mixing stick is designed to be used in a straight-sided container. Never measure paint with a mixing stick in a tapered mixing cup.



### Using a Matthews Mixing Stick

1. Thoroughly agitate the paint or stir the mixed color.
2. Place a Matthews mixing stick into a straight-sided container so that it stands vertically.
3. Choose one of the four columns based on the total ready to spray quantity desired. In this example we are using the left column with the largest increments. (See Figure 2) Note: When using a Mixing Stick, all ingredients are measured in one vertical column.
4. Pour the paint into the cup up to the "3" in the left column.
5. Pour the catalyst into the cup up to the "4" in the same column.
6. Pour the reducer into the cup up to the "5" in the same column.
7. Optional: Add accelerator (using separate accelerator cup) to the specific volume indicated on the corresponding product's Technical Data Sheet (TDS).
8. Stir the properly measured mixture for 60 seconds or until you can visually see that all ingredients are thoroughly mixed.

 MATTHEWS PAINT UNIVERSAL MIXING STICK	
10	20
	19
9	18
	17
8	16
	15
7	14
	13
6	12
	11
5	10
	9
4	8
	7
3	6
	5
2	4
	3
1	2
	1

Figure 2  
Yellow = Paint  
Red = Catalyst  
Blue = Reducer



# Measuring Film Build

Achieving the proper total dry film build of any paint system is critical to ensure long-term durability. Refer to Matthews Technical Data Sheets (TDS) for film build recommendations.

## Measuring Wet Film

Wet film can be measured by using a Wet Film Thickness Gauge (See Figure 3). This can be done after applying the first coat of material and only if any previously applied coats are completely dry (firm). Note: To ensure the most accurate reading, make sure the surface being measured is flat, smooth, and rigid.

1. Apply the first coat of product as normal.
2. Starting with the 1 to 6 mil scale, immediately place wet film thickness gauge at a 90° angle to the coated substrate and push down into the wet coating. Wait a few seconds to allow the “teeth” of the gauge to become “wetted” by the coating. (see Figure 4)
3. Withdraw the gauge vertically keeping it at 90° to the substrate.
4. Visually examine the gauge to determine how many teeth made contact with the wet film. Counting the number of “wet” teeth between the outer legs will give an approximate amount of wet film thickness. (See Figure 5)
5. Clean the gauge thoroughly after each use.



Figure 3

**Caution:** Measuring wet film is a destructive test! Always take film readings on a test panel or in an inconspicuous area.

Figure 4

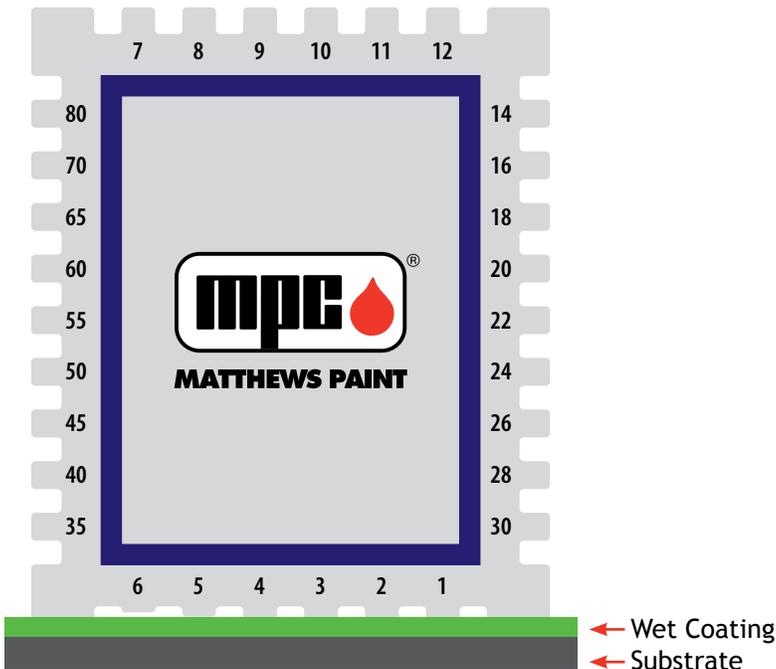
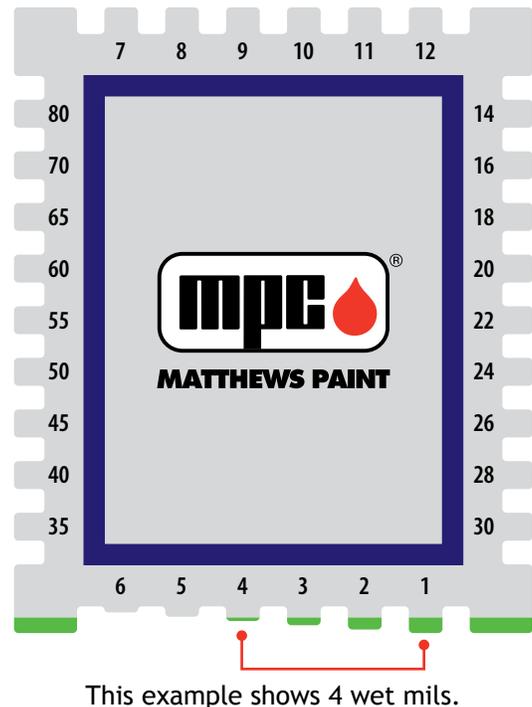


Figure 5



## Measuring Dry Film

There are several electronic film thickness gauges available today, many of which can read both ferrous and non-ferrous metals. These gauges are easy to use and can accurately read the total amount of coating on metal substrates.

Electronic film thickness gauges vary; follow manufacturer instructions for calibration and use.

If there is an existing coating on the substrate, take a film reading and make note before applying any product.

For best results, the surface should be clean, flat and dry/firm.



- To ensure accurate readings, always calibrate the Electronic Film Thickness Gauge before each use.



## Conversion Charts

### BAR to PSI

BAR	PSI
0.6	8.7
0.8	11.6
1.0	14.5
1.2	17.4
1.4	20.3
1.6	23.2
1.8	26.1
2.0	29.0
2.2	31.9
2.4	34.8
2.6	37.7
2.8	40.6
3.0	43.5

### Ounces to Milliliters

Milliliters (ml)	Ounces (oz)
0.25	7
0.50	15
0.75	22
1.00	30
1.25	37
1.50	44
1.75	52
2.00	59
2.25	67
2.50	74
2.75	81
3.00	89

# Reference

## Fahrenheit to Celsius

Fahrenheit	Celsius
100	37.8
95	35.0
90	32.2
85	29.4
80	26.7
75	23.9
70	21.1
65	18.3
60	15.6
55	12.8
50	10.0
45	7.2
40	4.4
35	1.7
33	0.6
25	-3.9

## Fluid Tip Orifice

Metric (mm)	Inches (thousandths)
0.7	0.028
0.8	0.031
0.9	0.035
1.0	0.039
1.1	0.043
1.2	0.047
1.3	0.051
1.4	0.055
1.5	0.059
1.6	0.063
1.7	0.067
1.8	0.071
1.9	0.075
2.0	0.079
2.1	0.083
2.2	0.087
2.3	0.091
2.4	0.094
2.5	0.098









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