

# THE BEST STEPS FOR THE BEST COAT



## 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 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 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.

## 2.1 Epoxy Primers:

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

- Clean with 45330SP/01 Speed Prep 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 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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# Aluminum (Continued)

## White Epoxy Primer:

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

- Clean with 45330SP/01 Speed Prep 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.

## High Build Polyester Primer Surfacer:

**6002SP/01:** *RTS 1.8 VOC*

- Clean with 45330SP/01 Speed Prep 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 High Build 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 6002SP/01 High Build 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 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 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 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.

# 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 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 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 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 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.

# 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 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 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 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.

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# Steel (Continued)

## Brilliant White Primer:

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

- Clean with 45330SP/01 Speed Prep 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 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.

## High Build Polyester Primer Surfacer:

### 6002SP/01: *RTS 1.8 VOC*

- Clean with 45330SP/01 Speed Prep 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 High Build 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 6002SP/01 High Build 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 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 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 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.

# 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 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 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 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 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.

# 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 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 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.

### High Build Polyester Primer Surfacer:

#### 6002SP/01: *RTS 1.8 VOC*

- Clean with 45330SP/01 Speed Prep 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 High Build 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 6002SP/01 High Build 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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## Steel or Aluminum Repairs (Continued)

### White Epoxy Primer:

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

- Clean with 45330SP/01 Speed Prep 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.

# 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 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 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 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 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.

# Acrylic



- Use proper Personal Protective Equipment (PPE) during product application.
- 6410SP/01 can be used as a cleaner 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 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 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.

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



- Use proper Personal Protective Equipment (PPE) during product application.
- 6410SP/01 can be used as a cleaner 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 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.
- 6410SP/01 can be used as a cleaner 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 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.



## High Build Polyester Primer Surfacer:

6002SP/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, 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 High Build 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 6002SP/01 High Build 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.
- 6410SP/01 can be used as a cleaner 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 6002SP High Build Polyester Primer Surfacer on rough sides prior to topcoating:

- Using a roller, apply 1-3 coats of 6002SP/01 High Build Polyester Primer Surfacer on rough side sections only (do not apply 6002SP/01 to face of the PVC).
- Allow 1.5 hours to dry.
- Sand to desired smoothness.
- Clean with 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 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 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.
- 6410SP/01 can be used as a cleaner 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 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 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.
- 6410SP/01 can be used as a cleaner 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 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.
- 6410SP/01 can be used as a cleaner 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 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 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.
- 6410SP/01 can be used as a cleaner 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 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.
- 6410SP/01 can be used as a cleaner 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 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 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 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.
- 6410SP/01 can be used as a cleaner 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 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 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 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.
- 6410SP/01 can be used as a cleaner 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 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 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 with 6410SP/01 Low VOC PreCleaner.
- Topcoat per technical data sheet recommendations.

# Flexible Face (Cooley)

- Use proper Personal Protective Equipment (PPE) during product application.
- 6410SP/01 can be used as a cleaner 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 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 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, 6002SP/01 High Build Polyester Primer Surfacer provides the most fill. Otherwise, any Matthew Epoxy primer can be used.

## High Build Polyester Primer Surfacer:

6002SP/01: *RTS 1.8 VOC*

- Blow off substrate with clean compressed air.
- Mix High Build 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 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 6002SP/01 High Build 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*

- 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.

**Continued on next page...**

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

### 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.

### 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.

## 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.

### 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.



## High Build Polyester Primer Surfacer:

6002SP/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 High Build 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 6002SP/01 High Build 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.

## 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.

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# Fiberglass Gel-Coated

- Use proper Personal Protective Equipment (PPE) during sanding and product application.
- 6410SP/01 can be used as a cleaner 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 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.



## High Build Polyester Primer Surfacer:

6002SP/01: *RTS 1.8 VOC*

- Blow off substrate with clean compressed air.
- Mix High Build 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 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 6002SP/01 High Build 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.

# 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 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 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 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.

# 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.

# 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 Braco Clear contains an anti-tarnish agent.



### Spray Bond Adhesive:

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

- Clean with 45330/01 Speed Prep 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.
- 6410SP/01 can be used as a cleaner 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 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 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.
- 6410SP/01 can be used as a cleaner 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 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 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 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.
- 6410SP/01 can be used as a cleaner 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 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 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 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 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.

# Mixing Matthews Paint Products

The two most common methods for mixing Matthews paint products are a Mixing Cup or a Mixing Stick:



3 : 1 : 1		
		7
		6
	7	
	6	5
7	5	4
6		
5	4	3
4	3	
3	2	2
2	1	1
1		

Figure 1  
Yellow = Paint  
Red = Catalyst  
Blue = Reducer

## 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.

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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
4	9
	8
3	7
	6
2	5
	4
1	3
	2
	1

Figure 2  
Yellow = Paint  
Red = Catalyst  
Blue = Reducer

# Refurbishment & Field Repair

## Building Facades

### Construction Materials, Doors and Frames

- Substrate must be completely cleaned to ensure all contaminants have been removed.
- Follow all safety and compliant product usages for exterior applications.



- Consider building facades refurbished from the ground up to approximately 8 feet in height using Matthews for better durability in these high traffic areas.
- Clean area using a pressure washer along with a cleaning solution to remove all loose paint and foreign matter (mildew, dirt, bird droppings, etc.)
- Let area thoroughly dry before sanding.
- Sand/Abrade areas needing to be painted with the correct sandpaper to create good adhesion. Feather existing painted areas that have been chipped/peeled, or areas with loose paint.
- Clean with 6410SP/01 Low VOC PreCleaner.
- Prime all areas that have been sanded through and substrate is exposed, and prime substrates that have been added.
- After primer has been allowed to dry for more than 24 hours, it has to be sanded with a 220 grit sandpaper.
- Clean again with appropriate cleaner.
- Apply Matthews Color Coat to a total of 4.0-4.5 wet mils to achieve 2.0 mils DFT.
- Topcoat per technical data sheet recommendations.

Always refer back to substrate guide for additional information.

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## Queue Lines

### Handrails, Railings, Fences, Gates, Safety Barriers, Steel Frames

- It is important through the cleaning prior to refurbishing to remove all sun tan lotion, oil, and dirt residue on all guest-touchable surfaces before sanding.



- Clean with 6410SP/01 Low VOC PreCleaner.
- Sand/Abrade areas needing to be painted with the correct sandpaper to create good adhesion. Feather existing painted areas that have been chipped/peeled, or areas with loose paint.
- Completely remove all rust on ferrous metals. On non-ferrous metals, be sure to remove all corrosion (white powder).
- Clean again with appropriate cleaner.
- Prime all exposed areas that have been sanded through to base substrate with a Matthews epoxy primer.
- Sand all areas that have been primed after 24 hrs. (Remember 15 degree rule)
- Clean again with appropriate cleaner.
- Apply Matthews Color Coat to a total of 4.0-4.5 wet mils to achieve 2.0 mils DFT.

Always refer back to substrate guide for additional information.

# Lamp Posts

## Light Poles, Ornamental Steel and Iron

- With ornate areas that are difficult to effectively sand use a Scotch-Brite pad for abrasion after cleaning. Clean before and after any abrasion.



- Clean with 6410SP/01 Low VOC PreCleaner.
- Sand/Abrade areas needing to be painted with the correct sandpaper to create good adhesion. Feather existing painted areas that have been chipped/peeled, or areas with loose paint.
- Clean again with appropriate cleaner.
- Prime all exposed areas that were sanded through with a Matthews primer before painting. Prime with Matthews Epoxy Primer.
- Sand all areas that have been primed after 24 hrs. (Remember 15 degree rule)
- Clean again with appropriate cleaner.
- Apply Matthews Color Coat to a total of 4.0-4.5 wet mils to achieve 2.0 mils DFT.

Always refer back to substrate guide for additional information.

# Ride Vehicles

- While repairing fiberglass, small cracks may be discovered. Before filling these breaks with resin or Bondo, first drill a small hole on each end of the crack to prevent the fracture from traveling.



- Clean thoroughly with 6410SP/01 Low VOC PreCleaner. If area has heavy amounts of axle grease or motor oil, use a degreaser cleaner first.
- Repair all damaged areas.
- Sand/Abrade areas needing to be painted with the correct sandpaper to create good adhesion. Feather existing painted areas that have been chipped/peeled, or areas with loose paint.
- Clean again with appropriate cleaner.
- Prime all areas that have been sanded through and substrate is exposed.
- After primer has been allowed to dry for more than 24 hours, it has to be sanded with a 220 grit sandpaper.
- Clean again with appropriate cleaner.
- Apply Matthews Color Coat to a total of 4.0- 4.5 wet mils to achieve 2.0 mils DFT.

Always refer back to substrate guide for additional information.

# Theming

## Let's Make Rust



- To make rust you have to know what it looks like.
  - Steel: Dark Brown/Brown/Red
  - Iron: Dark Orange/Orange/Brown
  - Aluminum/Oxidation: White/Yellow
- Tools Needed:
  - Multiple Sponges/Sizes
  - Rags
  - Stiff Acid Brushes
  - Soft China Bristle Brush

- First, decide what type of rust you want to emulate.
  - Paint your base color. For best results, let it set overnight.
  - Always scuff before you start the theming process with a Scotch-Brite pad for good adhesion.
  - Clean with 6410SP/01 Low VOC PreCleaner.
  - Pick your first color to make your rust. It is usually the darkest color.
  - Let the first color of rust dry, then add clearcoat to ensure next colors don't smudge.
  - If clearcoat has sat longer than 24 hours, scuff between coats. Then clean. Pick your second color to make your rust. It is usually the medium color.
  - Let the second color of rust dry, then add clearcoat to ensure next color doesn't smudge.
  - If clearcoat has sat longer than 24 hours, scuff between coats. Then clean.
  - Pick your third color to make your rust. It is usually the lightest color, and is used minimally.
  - When painting the final clearcoat, you can use multiple gloss levels to imply the aging process.
- Always refer back to substrate guide for additional information.

# Aging

## Let's Make It Look Old

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- To show more age, you can add mold and mildew by sponging on different shades of green, or you can add dirt and grime.
- To make the aging look more realistic, have the areas that are in the sun faded more, and the areas that are in the shade not as faded and glossier.

### Let's Do a Paint Fade to Show Age

- Clean with 6410SP/01 Low VOC PreCleaner.
- Prime bare areas if needed.
- Paint base color selected.
- After base color has been painted and flashed, add a small amount of white or another color such as a light yellow to base to start fade. (Do not add color to already mixed paint in spray cup. That will change the mix ratio).
- Add color in original base, then mix 3-1-1.
- Start fade from bottom up for a better blend line.
- As soon as second color has been blended, spray a coat of clear to burn in fade line. This will keep paint edge smooth.
- If third color is desired, add more color to your base, then spray from bottom up as before and re-clear complete area.
- To show additional age, you can clear first base color in a semi-gloss, then fade to a satin, and then to a matte finish.

Always refer back to substrate guide for additional information.

# Brush/Roller Process for Field Repair

## Recommended Brushes and Rollers



### Rollers:

- Should be urethane-compatible foam, velour, woven polyester, mohair, or lambs wool.
- Other rollers may swell or dissolve.
- Examples:
  - 4" Whizz rollers: #34011 (yellow), #54011 (white w/ yellow/black stripe), #54060 (black), or #74011 (white w/ blue stripe)
  - 4-1/2" Wooster rollers: #RR304 (white), #RR310 (green), or #RR311 (red)



### Brushes:

- Use a china bristle or fine bristle nylon/polyester brush.

## Cleaning and Preparation



### Cleaning:

1. Apply a generous amount of cleaner on the surface with a clean cloth or a hand held spray bottle and wipe the surface.
2. The initial application will float contaminants to the surface, and the second wipe using a separate clean dry cloth, will remove contaminants.
3. 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.
4. Never let the cleaner dry on the surface.
5. For best results, clean surface before and after sanding.



### Sanding:

1. Abrade as necessary with 180-320 grit, finishing sanding with the finest grit possible.
2. Be sure to featheredge the original finish surrounding the repair area.

# Brush/Roller Process for Field Repair

## Priming Bare Metal or Repaired Areas

### Primer Product Selection

Select an MPC Primer that will provide the fill characteristics, dry times and VOC level desired and meet all state and local regulations. Always refer to MPC Technical Data Sheets for all performance data and VOC.

### Notes:

- Avoid overloading the roller or brush.
- Apply coats as evenly as possible. Heavy coats will increase flash times and dry times.
- Even coats will provide better coverage and uniformity than heavy coats.
- Use appropriate reducer for product being used. Refer to the Matthews Product Data Sheet for mix recommendations for optimal performance.
- Maintain 50% overlap to avoid lap marks.



### Primer Rolling Process (spot repair):

1. Roll 1st Coat:
  - a. Start from the center of the repair and roll the primer over the entire repair area using a “flicking” or lifting technique to create a soft edge all around the repair area. This technique will ensure a thin, smooth edge and make sanding easier.
2. Allow the 1st coat to flash off until it is dry to touch.
3. Roll 2nd Coat:
  - a. Using the same application technique apply the 2nd coat just beyond the 1st coat to ensure a soft edge.



### Primer Rolling Process (full panel):

1. Roll 1st coat edge to edge.
  2. Allow to flash until surface is dry to touch.
  3. Roll 2nd coat edge to edge.
  4. Allow to flash until surface is dry to touch.
- Important: If primer is left to dry longer than 24 hours, surface must be lightly sanded with 320 grit or red scuff pad before applying topcoat.



### Topcoat Rolling Process (solid colors only):

1. Mix topcoat being used according to recommendations on TDS
2. Roll 1st coat.
3. Allow to flash until surface is dry to touch.
4. Roll 2nd coat.
5. Refer to product TDS for dry time recommendations.



760 Pittsburgh Drive • Delaware, OH 43015  
1.800.323.6593 • Visit our website at: [www.matthewspaint.com](http://www.matthewspaint.com)

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