



product  
information

**6M00-SERIES**  
ALIPHATIC POLYESTER POLYURETHANE

**Cardinal's 6M00-Series** is a high performance two component solvent borne aliphatic polyester Polyurethane developed for exterior specifications. This coating was designed to be applied by hand with brush and roller as well as spray. Cardinal's 6M00-series has excellent performance properties such as extreme high gloss, chemical resistance, flexibility, abrasion resistance, weatherability, ease of application and is VOC compliant for SCAQMD.

**TYPICAL USES:**

- Marine
- High Performance requirements
- Outdoor applications
- Metal and Plastic substrate

**BENEFITS:**

- SCAQMD VOC Compliant
- Ease of Application
- High Gloss
- Excellent Weathering
- Buffable Coating

**TYPE:** Solvent based Aliphatic Polyester Polyurethane.

**COMPONENTS:** Two.

**COLOR:** Any.

**GLOSS:** 90+ at 60° .

**COVERAGE:** At 1.0 mil DFT, 65% transfer efficiency(TE)  
Mixed paint: **650** ft<sup>2</sup>/gal. for Brushing.  
Calculation: 1604 ft<sup>2</sup>/gal x % volume solids x TE ÷ DFT

**MIX RATIOS & VOC INFORMATION: Brushing**

Paint	Hardener	Reduction	VOC	VOC	Volume	Weight
<b>6M00-Series</b>	<b>6MHP</b>	<b>SB-48</b>	<b>Excluding</b>	<b>Including</b>	<b>Solids</b>	<b>Solids</b>
2 Parts	1 Part	¼ Part	2.8 LBS/GAL	2.8 LBS/GAL	57%	70%

**MIX RATIOS & VOC INFORMATION: Spraying**

Paint	Hardener	Reduction	VOC	VOC	Volume	Weight
<b>6M00-Series</b>	<b>6MHP</b>	<b>SM-Reducer</b>	<b>Excluding</b>	<b>Including</b>	<b>Solids</b>	<b>Solids</b>
2 Parts	1 Part	1 Part	3.5 LBS/GAL	3.5 LBS/GAL	51%	65%

**VOLUME SOLIDS: BRUSHING**

6M00-Series .....61%  
6MHP .....91%  
SB-48 ..... 0%

**VOLUME SOLIDS: SPRAYING**

6M00-Series .....61%  
6MHP .....91%  
SM-Reducers ..... 0%

**FLASH POINT:** > 81 °F TCC

**VISCOSITY:** 18"-22" #3 Zahn range.

**SPRAY-ABLE POT LIFE:** 3 hours not accelerated

**RECOMMENDED DFT:** 2.0 – 3.0 mils

**APPLICATION CONDITIONS:**

- Temperature- Apply coating within the range 55-100 F
- Relative Humidity- not recommended to apply in conditions greater than 85%
- Substrate temperature- 5° above the dew point and a minimum of 55°F

*If coating is not applied within these conditions then the cured coating properties may be representative.*

**EQUIPMENT:**

- Conventional- 40-50 psi / 0.055 fluid tip - Spray
- HVLP- 10 psi at air cap/ 0.055 fluid cap - Spray
- Pressure pot- 10-15 psi/ 0.046 fluid cap – Spray
- Low nap foam rollers
- Solvent Compatible Foam, synthetic or natural hair brushes.

**SHELF LIFE:** 1 year from date of manufacture in factory sealed container.

**DRY TIMES:**

<b>AIR DRY (1.5 mil dft, 75 F @ 50% RH)</b>	
Dust free	2 hours
Dry to recoat	3 hours
Dry to touch	3 hours
Dry to Tape	24 Hours
Dry to handle	24 hours
Full Cure	7 Days

**PHYSICAL PROPERTIES:**

TEST	METHOD	PARAMETERS	RESULT
Hardness	ASTM D3363	Pencil	2H
Abrasion	ASTM D4060	CS 17, 2 Kg, 1000 Cycles	Less than 100 mg
Adhesion	ASTM D3359	Cross-hatch tape	0% failure
Flexibility	ASTM D1737	1/8" mandrel	No cracking
UV Resistance	ASTM G53	1000 hours	> 95% gloss retention
Humidity	ASTM D2247	500 hrs	No effect
Solvent Resistance		MEK 100 rubs	No effect

**APPLICATION:**

**SPRAY**

1. Apply over a primed or previously painted surface which has been sanded with 280-320 or 320-400 grit respectively and cleaned.
2. Follow the specified mix ratios.
3. Adjust gun settings for a 9"-12" spray fan 12" from substrate.
4. Apply the coating with an overlapping spray technique.
5. Allow the coating to flash for 0.5 hours before applying a second coat.
6. Allow for 24 hours to cure before handling or taping.
7. Full cure 7 days

**BRUSH & ROLL**

1. Apply over a primed or previously painted surface which has been sanded with 280-320 or 320-400 grit respectively and cleaned.
2. Apply the coating with a small nap foam roller using vertical strokes until a uniformed finish. Tip the finish immediately after rolling with a brush to remove bubbles or blemishes.
3. Same cure cycle as spray.

**FINAL FINISH**

1. Once the coat has been air dried for seven days the surface needs to be prepped for buffing.
2. Sand the finish with a variety of different fine grit sand papers removing any blemish or contaminant. Start with 600, and then work up the final wet sand of 1000-2000.
3. Buff the finish using a variety of fine finish wheels with a fine buffing compound. The speed on the wheel should be between 750-1000 rpm.
4. For final finish use a fine polishing cloth with a water based polish compound.

**Note:**

These recommendations are only a suggestion and do not imply that other products and techniques currently being used won't work. All procedures and materials used must be tested and approved by the applicator.

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NO WARRANTY EXPRESSED OR IMPLIED, ACCEPTABILITY TO BE DETERMINED BY USER, SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE

## **RECOMMENDED COATING SUBSTRATE SYSTEMS:**

### **ALUMINUM:**

#### Prep

- Abrade surface with 220 or 400 grit sandpaper.
- Clean with WM-01 metal cleaning solution.

#### Primer

- 7M60-10 epoxy primer (2-3 dry mils/ 6-7 wet mils)
- 7M90-4702 Fast dry primer (2-3 dry mils/6-7 wet mils)
- 4M60-52 Etch primer (0.2-0.5 dry mils/ 5-10 wet mils)

#### Topcoat

- 6M00-Series Marine Polyurethane

### **STEEL:**

#### Prep

- Abrade surface with 220 or 400 grit sandpaper.
- Clean with WM-01 metal cleaning solution.

#### Primer

- 7M60-10 epoxy primer (2-3 dry mils/ 6-7 wet mils)
- 7M90-4702 Fast dry primer (2-3 dry mils/6-7 wet mils)
- 4M60-52 Etch primer (0.2-0.5 dry mils/ 5-10 wet mils)

#### Topcoat

- 6M00-Series Marine Polyurethane

### **PLASTICS:** Polycarbonate, Polyurethane, ABS, Fiberglass, Acrylic, PVC & TPO.

#### Prep

- Light sanding with a 400 grit sandpaper will help adhere to difficult substrates.

#### Prime

- 7M90-4702 Fast dry primer (1.5-2.0 dry mils/3-6 wet mils).
- WM-02 plastics adhesion promoter for polyolefin type plastics

#### Topcoat

- 6M00-Series Marine Polyurethane

### **WOOD:**

#### Prep

- Sand surface with 220 or 400 grit sandpaper

#### Prime

- 7M90-4702 Fast dry primer (1.5-2.0 dry mils/3-6 wet mils).

#### Topcoat

- 6M00-Series Marine Polyurethane

## **ADDITIONAL PRODUCT INFORMATION:**

### **REDUCERS FOR 6M00-SERIES**

- SM-01 fast spray reducer
- SM-02 medium spray reducer
- SM-03 slow spray reducer
- SM-04 brushing reducer
- SM-05 polyurethane retarder

### **ADDITIVES TO COMPLIMENT 6M00-SERIES**

- AMA-01 Accelerator
- AML- Crater Additive
- WM-01 Metal Prep Solution
- WM-02 Plastic Adhesion Promoter

**APPLICATION EQUIPMENT:** Most air quality regulations require the paint application transfer efficiency to be 65% or better. This generally means using electrostatic or high volume low pressure (HVLP) spray guns. Otherwise, conventional pressure feed, airless or air assisted airless spray equipment can be used. Air supply lines need water and oil traps.

**EQUIPMENT CLEAN-UP:** Clean up should be done as soon as possible keeping in mind the pot life of the mixed paint. Air quality regulations have limited the allowable emissions from cleaning operations.

### **SAFETY:**

Refer to the product's Material Safety Data Sheet (MSDS) for complete safety information.

Contains organic solvents. Use with adequate ventilation. Do not breathe vapors or spray mists. If component TLVs are exceeded, a NIOSH approved air supplied respirator is advised. See MSDS for TLV information. Contents are FLAMMABLE. Keep from heat, sparks or open flame. Allergic reactions are possible. Avoid use by persons with respiratory problems. Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling. First Aid: Eye contact: flush immediately with plenty of water for at least 15 min. and get medical attention. Skin contact: wash thoroughly with soap and water for 5 minutes. If swallowed, do not induce vomiting and get medical attention immediately.

**For Health information refer to Material Safety Data Sheet**

**FOR INDUSTRIAL USE ONLY  
NOT FOR RESIDENTIAL USE**

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**IMPORTANT: Warranty and Disclaimer** — The performance characteristics of these products vary according to product application, operating conditions, materials applied to or with and use. Since these factors can affect results, we strongly recommend that you make your own test to determine to your satisfaction whether the product is of acceptable quality, has not been affected by storage or transport and is suitable for your particular purpose under your own operation conditions prior to using any product in full scale production. Seller warrants the products to be free from defects in materials and workmanship. SUCH WARRANTY IS EXCLUSIVE AND IS IN LIEU OF ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OF FITNESS FOR A PARTICULAR PURPOSE. No representative of ours has authority to waive or change this provision, which applies to all sales of these products.

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