

# Technical Product Data



PRECISION COATINGS

## **PRECISION DTM 3000 SERIES** **Polyurethane Primer**

### DESCRIPTION

Multi-purpose polyurethane primer  
Interior and Exterior surfaces  
Spray, brush or roll application  
May be used as a primer sealer  
Exceptional adhesion to a wide variety of substrates

Fast recoat time  
Low VOC  
Superior protective properties  
LEED NC 2009 compliant

### TECHNICAL DATA:

|                                |   |
|--------------------------------|---|
| AVAILABLE COLORS               | White (# 30500), Gray (# 30560), Black (# 30540), Red Oxide (#30550), Yellow Oxide (#30570)       |
| % SOLIDS by volume             | 43% as packaged, 45% as applied   |
| SPRAYABLE VOC as applied       | 28 g/l (less water & exempt compounds)  |
| COMPONENTS                     | DTM 3000 Series Polyurethane Primer (resin) 3 parts<br>PC-03 Polyurethane Activator (cure) 1 part |
| POT LIFE                       | 3 hours @ 70° F, 21° C  |
| SHELF LIFE                     | one year (unopened)   |
| REDUCERS                       | optional: use PCI's 16050 VOC Exempt Reducer  |
| FLASH POINT                    | 65° F, 18° C  |
| MIX RATIO                      | 3:1 (3 parts primer: 1 part activator)  |
| RECOMMENDED DRY FILM THICKNESS | 1.5 mils to 3.0 mils  |
| THEORETICAL COVERAGE           | 481 – 240 sq. ft. at recommended DFT (no loss)  |

### SURFACE PREPARATION

DTM 3000 Primer may be applied over properly prepared substrates including carbon steel, aluminum, galvanized steel, coated surfaces, concrete, masonry block, gypsum board and wood. Good painting practices require that before applying coatings a test or mock-up be performed to ensure that adhesion, appearance and color meet the expectations of the owner. Coating performance is proportional to the degree of surface preparation performed. All surfaces must be clean, dry and free of oil, grease, dirt, salt deposits or other contamination. Recommended preparation is as follows:

**Steel** – Clean the surface of all foreign material SSPC-SP1 followed by SSPC-SP2, SP3, SP6, SP7, SP11, SP14 or SP15. Precision's 02150 Metal Conditioner may be used to clean and treat steel substrates to eliminate oil, soap film, grease, and flash rusting.

**Aluminum** - Remove all contaminants per SSPC-SP1 and abrade using hand tool, power tool or SSPC-SP16 to obtain a profile equivalent to 220 grit sandpaper.

**Galvanized Steel** – Preparation shall meet ASTM D6386 –10. Remove all contaminants per SSPC-SP1, check for the presence of chromates or other passivation treatments per SSPC-SP16. If passivation treatment exists, brush-off blast cleaning per SSPC-SP16 is required. Complete removal of chromates or other passivating treatments must be confirmed by testing (SSPC-SP16 or ASTM B 201) prior to coating application.

**Concrete & Masonry** – Surface must be cured, clean, dry, free of contamination and disintegrated or chalky materials. SSPC-SP13 may be used for surface preparation of concrete and masonry block. *Not for Floors.*

**Coated surfaces** – On previously coated surfaces, ensure that the existing coating is properly and fully bonded to the substrate. Physically abrade the existing coated surfaces thoroughly and completely with 180 to 240 grit or equivalent abrasive paper or scuff pad. For primed substrates, follow the surface preparation instructions and recoat times for the specific primer used.

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## **PRECISION DTM 3000 SERIES Polyurethane Primer**

### **INSTRUCTIONS – MIX RATIO**

Stir or shake thoroughly to ensure uniform mixture. Mix 3 parts DTM 3000 Series Primer with 1 part PC-03 Polyurethane Activator.

**Reduction is not necessary.** However, primer may be reduced up to 10% by volume using PCI's 16050 VOC Exempt Reducer.

**For faster cure times,** add up to 8 oz of PCI's 12030 Urethane Accelerator per ready to spray gallon of primer.

### **APPLICATION**

**Environmental Conditions:** Air and surface temperature must be above 50<sup>o</sup> Fahrenheit and no more than 95<sup>o</sup> Fahrenheit. Surface temperature must be at least 5<sup>o</sup>F (3<sup>o</sup>C) above the dew point.

**Application:** Apply using 40-55 PSI at the gun for siphon and gravity feed spray guns, 10 PSI max. for HVLP spray guns. Apply 1-3 medium wet coats until desired coverage and flow is reached. Allow a 5 to 10 minute flash time between coats. Recommended film thickness is 2.0 to 6.0 mils DFT. May be brushed or rolled for field service applications. Use a natural bristle brush or ¼ inch to ¾ inch nap, phenolic core roller.

### **SPRAY GUN SET-UP & PRESSURE**

| <u>Type</u>   | <u>Fluid Tip</u>                    | <u>Spraying Pressure</u>  |
|---------------|-------------------------------------|---------------------------|
| Siphon Feed   | 1.6mm – 1.8mm                       | 40-65-PSI                 |
| Gravity Feed  | 1.6mm – 1.8mm                       | 40-65 PSI                 |
| HVLP Siphon   | 1.6mm – 1.8mm                       | max. 10 PSI @ the air cap |
| HVLP Gravity  | 1.6mm – 1.8mm                       | max. 10 PSI @ the air cap |
| Pressure Pot  | 1.1 mm- 1.3 mm                      | 29 PSI - 58 PSI           |
| Airless Spray | Double Orifice 415 through 517 Tips |                           |

Brush – natural bristle

Roller – ¼ to ¾ inch nap, phenolic core

### **DRY TIMES**

DTM 3000 Series Primer may be air dried or force dried

Dry times @ 70°F (21°C) and 50% RH

Dust Free 5 minutes

Tack Free 1 hour

Recoat May be recoated at any stage.

Scuff sanding or light abrasion will become necessary after 24 hours.

Force Dry 140° F for 20 minutes. Allow a 10minute cool down time before handling.

### **CLEAN UP**

Clean all spray equipment immediately after use. Acetone may be used for cleanup of application equipment. PCI's 17000 Gun Cleaner is a VOC exempt cleaner and is recommended for cleaning application equipment used to apply the DTM 3000 Primer system.

Refer to Material Safety Data Sheet for proper handling of products listed in this bulletin.

*DISCLAIMER: The technical information and suggestions for use have been compiled for your guidance and usage. Such information is based on Precision Coatings, Inc. experience and research and is believed to be reliable. As PCI has no control over conditions in which the product is used, stored, or otherwise handled, the above information does not constitute a warranty. Buyers must assume responsibility for the suitability of the product for their purposes.*

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### PERFORMANCE DATA

| TEST METHOD  | SYSTEM (7 day, ambient temp. cure)   | RESULTS  |
|--|--|--|
| ASTM D-3359<br>Adhesion                                    | Cold Rolled Steel<br>Solvent wipe 02150 Metal<br>Conditioner<br><br>1.8 mils DFT DTM 3000 Primer<br>1.4 mils DFT PC3/PC-03 Topcoat | 100% retention (no tape off)   |
| ASTM D-4587<br>QUV Resistance<br>Accelerated<br>Weathering | Cold Rolled Steel<br>Solvent wipe 02150 Metal<br>Conditioner<br><br>1.8 mils DFT DTM 3000 Primer<br>1.4 mils DFT PC3/PC-03 Topcoat | Gloss - 98% retention after 2012 hours<br>delta E color change - 0.42 after 2012 hours<br><br>No blistering, rusting, checking or cracking               |
| ASTM B-117<br>Salt Fog                                     | Cold Rolled Steel<br>Solvent wipe 02150 Metal<br>Conditioner<br><br>1.8 mils DFT DTM 3000 Primer<br>1.4 mils DFT PC3/PC-03 Topcoat | No face corrosion nor blistering<br>after 1000 hours   |
| ASTM D-2287<br>Humidity Resistance                         | Cold Rolled Steel<br>Solvent wipe 02150 Metal<br>Conditioner<br><br>1.8 mils DFT DTM 3000 Primer<br>1.4 mils DFT PC3/PC-03 Topcoat | No blistering, cracking, softening or delamination<br>after 1000 hours   |
| ASTM D-1308<br>Chemical Resistance<br>24 hour spot test    | Cold Rolled Steel<br>Solvent wipe 02150 Metal<br>Conditioner<br><br>1.8 mils DFT DTM 3000 Primer<br>1.4 mils DFT PC3/PC-03 Topcoat | 87 octane unleaded gasoline - rating 5 no effect<br>10% Sulfuric Acid - rating 5 no effect   |
| ASTM D-5402<br>Chemical Resistance<br><br>solvent rubs     | Cold Rolled Steel<br>Solvent wipe 02150 Metal<br>Conditioner<br><br>1.8 mils DFT DTM 3000 Primer<br>1.4 mils DFT PC3/PC-03 Topcoat | Xylene - 200 double rubs no effect<br>Methyl ethyl ketone (MEK)-200 double rubs no effect<br>87 octane unleaded gasoline - 200 double rubs no<br>effect. |
| ASTM D-522<br>Flexibility                                  | Cold Rolled Steel<br>Solvent wipe 02150 Metal<br>Conditioner<br><br>1.8 mils DFT DTM 3000 Primer<br>1.4 mils DFT PC3/PC-03 Topcoat | 180 degree bend, 1/4" mandrel - pass   |

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