

Technical Product Data



PRECISION COATINGS

PC6 Series **Waterborne Urethane Topcoat**

DESCRIPTION

Single component waterborne internally cross-linked urethane dispersion
Interior and exterior surfaces
Field and shop application
Soap & Water Cleanup
Very Low Odor - Low VOC

Gloss, semi-gloss, satin, eggshell, matte
Metallic, iridescent (pearl), solid color & clear
Excellent adhesion and chemical & abrasion resistance
Superior weathering and durability
No Isocyanates
USGBC LEED Version 4 Compliant (pending)

TECHNICAL DATA

| | |
|--------------------------------|--|
| % SOLIDS by volume | 40% |
| COATINGS VOC (as packaged) | Solid Colors: Less than 50 g/l (less water & exempt compounds) Metallics & Iridescent: Less than 50 g/l (less water & exempt compounds) |
| SPRAYABLE VOC (as applied) | Solid Colors: Less than 50 g/l (less water & exempt compounds) Metallics & Iridescent: Less than 50 g/l (less water & exempt compounds) |
| RESIN TYPE | urethane dispersion |
| COMPONENTS | single component |
| SHELF LIFE | one year (unopened) |
| FLASH POINT | 144° F (62° C) |
| RECOMMENDED DRY FILM THICKNESS | 1.0 mils to 3.0 mils DFT |
| THEORETICAL COVERAGE | 641 – 213 sq ft at recommended DFT (no loss) |

SURFACE PREPARATION

Best results are achieved when PC6 Waterborne Urethane Topcoat is applied over a high-performance primer such as PCI's DTM 1600 Series High Build Waterborne Primer or PCI's DTM 1300 Series High Build Modified Epoxy Primer.

PC6 Topcoat may be applied directly over properly prepared substrates including steel, aluminum, galvanizing, and decorative metals such as copper and brass. Substrates such as concrete, masonry, wood, MDF, drywall and previously coated surfaces should first be properly primed. Recommended preparation is as follows:

Steel – Clean the surface to ensure that the substrate is free of grease, dirt, wax, mildew and other contaminants and abrade with 220 grit sandpaper or finer (SSPC-SP1 and SSPC-SP2 or SSPC-SP3, 6, or 7). PCI's 02150 Metal Conditioner may be used to clean and treat steel substrates to eliminated oil, soap film, grease, and flash rusting.

Aluminum & Galvanizing – Clean the surface to ensure that the substrate is free of grease, dirt, wax, mildew and other contaminants and abrade with 220 grit sandpaper or finer (SSPC-SP1 and SSPC-SP2 or SSPC-SP3, 6, or 7). PCI's 02150 Metal Conditioner may be used to clean and treat aluminum and galvanizing to eliminate oil and soap film.

Concrete, Masonry, Wood, MDF, Drywall – Surface must be clean, dry and free of any dirt, dust, grease, oil, wax, mildew, disintegrated or chalky materials or other contaminants.

Coated surfaces – Physically abrade existing coated surfaces. The existing finish must be tightly adhered to the substrate and be free of grease, dirt, wax, mildew and other contaminants.

PRECISION COATINGS

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INSTRUCTIONS

Stir or shake thoroughly to ensure uniform mixture.

Reduction is not necessary. However, paint may be reduced up to 5% by volume using tap water.

APPLICATION FOR “SOLID COLORS” & “METALLIC COLORS”

Environmental Conditions: Air and surface temperature must be above 50° Fahrenheit and no more than 90° Fahrenheit. Surface temperature must be at least 5°F (3°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 1.0 to 3.0 mils DFT. For detailed metallic and iridescent application instructions, see Precision Metallic and Iridescent Guidance. Solid colors may also be brushed or rolled. Metallic colors are not recommended to be brushed or rolled.

SPRAY GUN SET-UP & PRESSURE

| <u>Type</u> | <u>Fluid Tip</u> | <u>Spraying Pressure</u> |
|----------------|------------------|--|
| Siphon Feed | 1.4mm – 1.7mm | 40-65-PSI |
| Gravity Feed | 1.3mm – 1.4mm | 40-65 PSI |
| HVLP Siphon | 1.6mm – 1.8mm | max. 10 PSI @ the air cap HVLP |
| Gravity | 1.3mm – 1.5mm | max. 10 PSI @ the air cap Pressure Pot |
| 1.1 mm- 1.3 mm | 29 PSI - 58 PSI | |
| Airless Spray* | .013" - .019" | 2500 PSI 100 mesh filter |

**For solid colors only*

DRY TIMES

Dry times @ 70°F (21°C) and 50% RH

| | |
|--------------|---|
| Dust Free | 15 minutes |
| Dry to Touch | 1 hour |
| Dry Time | 24 hours |
| Full Cure | 14 days |
| Recoat | Unlimited - no recoat time necessary Sanding will become necessary after 24 hours. |

CLEAN UP

Clean all tools and spray equipment immediately after use with soap and warm water. Acetone may be used as a final rinse.

LIMITATIONS

Protect installed coating from rain, freezing, and continuous high humidity until completely dry. Do not apply in freezing conditions or if rain is imminent. Do not apply if elevated levels of water vapor transmission may exist following application. At water vapor transmission levels greater than 4 perms, blistering or bubbles may occur. Do not use below grade, on horizontal surfaces or in areas of ponding water.

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



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PERFORMANCE DATA

| TEST METHOD | SYSTEM (30 day, ambient temp. cure) | RESULTS |
|--|--|---|
| ASTM D-3359 Adhesion | Cold Rolled Steel Q-Panel Solvent wipe 02150 Metal Conditioner 1.2 mils DFT PC6 Waterborne Urethane Topcoat | 100% retention (no tape off) |
| ASTM D-4587 QUV Resistance Accelerated Weathering | Cold Rolled Steel Q-Panel Solvent wipe 02150 Metal Conditioner 1.2 mils DFT PC6 Waterborne Urethane Topcoat | Gloss - 82% retention after 1000 hours delta E color change - 0.7 after 1000 hours No blistering, rusting, checking or cracking |
| ASTM B-117 Salt Fog | Cold Rolled Steel Q-Panel Solvent wipe 02150 Metal Conditioner 1.2 mils DFT PC6 Waterborne Urethane Topcoat | No face blistering after 100 hours No face corrosion after 100 hours |
| ASTM D-2287 Humidity Resistance | Cold Rolled Steel Q-Panel Solvent wipe 02150 Metal Conditioner 1.2 mils DFT PC6 Waterborne Urethane Topcoat | No blistering, cracking, softening or delamination after 100 hours Gloss - 88% retention after 100 hours |
| ASTM D-1308 Chemical Resistance 24 hour spot test | Cold Rolled Steel Q-Panel Solvent wipe 02150 Metal Conditioner 1.2 mils DFT PC6 Waterborne Urethane Topcoat | Water resistance – rating 5 no effect 2 % Sulfuric Acid (Acid Rain) – rating 5 no effect |
| ASTM D-4366 Pendulum Hardness | Cold Rolled Steel Q-Panel Solvent wipe 02150 Metal Conditioner 1.2 mils DFT PC6 Waterborne Urethane Topcoat | Glass = 100s PC6 Waterborne Urethane 94s |
| ASTM D-522 Flexibility | Cold Rolled Steel Q-Panel Solvent wipe 02150 Metal Conditioner 1.2 mils DFT PC6 Waterborne Urethane Topcoat | 180 degree bend, 1/4" mandrel - pass |

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.