

# PC6 Waterborne Urethane Topcoat Metallic & Solid



## Description

PC6 Waterborne Urethane consists of a three-base solid color tint system and a three-base metallic tint system. Each of the tint systems are available in all standard Precision Coatings sheens including gloss, semi-gloss, satin, eggshell, and matte/flat and are based on Chromaflo's 896 waterborne colorants. Other private label colorant systems have also been found to be compatible with the PC3 tint system. Tinting formulas for Precision Coatings top eleven metallic colors are available upon request.

## Features & Benefits

- Single Component Waterborne Internally
- Very Low Odor - Low VOC
- Cross-Linked Urethane Dispersion
- Soap & Water Clean Up
- Superior Weathering & Durability
- Metallic, Iridescent (Pearl), Solid Color
- Field & Shop Application
- No Isocyanates
- USGBC LEED Version 4 Compliant

## Color & Finish

| Color         | Finish                      |
|---------------|-----------------------------|
| Neutral       | Eggshell, Semi-Gloss, Satin |
| Light         | Semi-Gloss, Satin           |
| Deep          | Semi-Gloss, Satin           |
| Silver Mist   | Eggshell, Semi-Gloss, Satin |
| Platinum      | Semi-Gloss, Satin           |
| Chrome Silver | Semi-Gloss, Satin           |

## Surface Preparation

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

PC6 Waterborne Urethane 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). Precision Coatings 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). Precision Coatings 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.

## 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° F and no more than 95° F. Surface temperature must be at least 5°F (3°C) above the dew point.

**Application:** PC6 Waterborne Urethane may be applied by spray, roller or brush application. For spray 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 of clear. Recommended film thickness is 2.0 to 3.0 mils DFT. Special care should be taken on edges that need to be coated to ensure that adequate film build is achieved. A stripe coat may be necessary for these conditions.

The Coating VOC when using 100% of the highest VOC Chromaflo 844 colorant with one of the PC6 Waterborne Urethane is less than 105 g/l (as applied less water & exempt compounds).

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Note: (a) The VOC of all Precision Coatings PC6 Waterborne Urethane as manufactured by Precision Coatings in its facilities are all less than 50 g/l (less water & exempt compounds).  
(b) The PC6 Waterborne Urethane Metallic Tint Bases do not meet the definition of a metallic coating as defined in most air districts and defined by the SCAQMD and CARB.

## Spray Gun Set-Up & Pressure

| Type          | Fluid Tip      | Spraying Pressure         |
|---------------|----------------|---------------------------|
| 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 | .011" - .015"  | 2500 PSI 100 mesh filter  |

\*For solid colors only, not recommended for application of metallics.

## Dry Times

PC6 Waterborne Urethane may be air dried or force dried

| Dry Times @ 70°F (21°C) & 50% RH |   |
|----------------------------------|---|
| Dust Free                        | 15 Minutes  |
| Tack Free                        | 3 Hours   |
| Dry Time                         | 24 Hours  |
| Full Cure                        | 14 Days   |
| Force Drying                     | Unlimited - no recoat time necessary<br>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.

| Technical Data             |  |
|----------------------------|--|
| % Solids by Volume         | 40%  |
| Coatings VOC (as packaged) | Solid Colors: Less than 50 g/l (less water & exempt compounds)<br>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)<br>Metallics & Iridescent: Less than 50 g/l (less water & exempt compounds) |
| Resin                      | Urethane Dispersion  |
| Components                 | Single Component   |
| Shelf Life                 | One year (unopened)  |
| Flash Point                | 144° F, 62° C  |
| Recommended Dry Film       | 1.0 mils to 3.0 mils DFT   |
| Theoretical Coverage       | 641 – 213 sq ft at recommended DFT (no loss)   |

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| Test Method                                       | System<br>(30 day, ambient temp. cure)   | Results   |
|---|--|---|
| ASTM D-3359 Adhesion                              | Cold Rolled Steel<br>Q-Panel Solvent Wipe 02150<br>Metal Conditioner<br>1.2 mils DFT PC6 Waterborne Urethane Topcoat | 100% Retention (No Tape Off)  |
| ASTM D-4587 QUV Resistance Accelerated Weathering | Cold Rolled Steel<br>Q-Panel Solvent Wipe 02150<br>Metal Conditioner<br>1.2 mils DFT PC6 Waterborne Urethane Topcoat | Gloss - 82% Retention after 1000 hrs<br>Delta E color Change - 0.7 After 1000 hrs<br>No blistering, rusting, checking or cracking |
| ASTM B-117 Salt Fog                               | Cold Rolled Steel<br>Q-Panel Solvent Wipe 02150<br>Metal Conditioner<br>1.2 mils DFT PC6 Waterborne Urethane Topcoat | No face blistering after 100 hrs<br>No face corrosion after 100 hrs   |
| ASTM D-2287 Humidity Resistance                   | Cold Rolled Steel<br>Q-Panel Solvent Wipe 02150<br>Metal Conditioner<br>1.2 mils DFT PC6 Waterborne Urethane Topcoat | No blistering, cracking, softening or delamination after 100 hrs<br>Gloss - 88% retention after 100 hrs                           |
| ASTM D-1308 Chemical Resistance 24 Hour Spot Test | Cold Rolled Steel<br>Q-Panel Solvent Wipe 02150<br>Metal Conditioner<br>1.2 mils DFT PC6 Waterborne Urethane Topcoat | Water resistance - Rating 5 no effect<br>2% Sulfuric Acid (Acid Rain) - Rating 5 no effect  |
| ASTM D-4366 Pendulum Hardness                     | Cold Rolled Steel<br>Q-Panel Solvent Wipe 02150<br>Metal Conditioner<br>1.2 mils DFT PC6 Waterborne Urethane Topcoat | Glass = 100s<br>PC6 Waterborne Urethane 94s   |
| ASTM D-522 Flexibility                            | Cold Rolled Steel<br>Q-Panel Solvent Wipe 02150<br>Metal Conditioner<br>1.2 mils DFT PC6 Waterborne Urethane Topcoat | 180° bend, 1/4" mandrel - pass  |

## **PC6 Waterborne Urethane Topcoat Metallic & Solid**



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