

Technical Product Data



PC6 Series **Waterborne Polyurethane Topcoat**

PRECISION COATINGS

DESCRIPTION

Single component waterborne polyurethane dispersion
Interior and exterior surfaces
Field and shop application
Soap & Water Cleanup
Very Low Odor - Low VOC
LEED NC 2009 compliant

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

TECHNICAL DATA

% SOLIDS by volume	40%
COATING VOC (as packaged)	Less than 50 g/l (less water & exempt compounds)
COATING VOC (as applied)	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	2.0 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 Topcoat is applied over a primer such as Precision's DTM 1300 High Build Primer for exterior use or DTM 1600 for interior use. DTM 1300 and DTM 1600 are UV resistant primers for use under solid colors as well as metallic and iridescent colors which are translucent.

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 prior to priming the substrate. 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. DTM 1300 Primer should be used over prepared aluminum.

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. DTM 1300 Primer should be used over prepared galvanized steel.

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

Previously Coated Surfaces - Surface must be clean, dry, and free of any dirt, dust, grease, oil, wax, mildew, disintegrated or chalky materials or other contaminants. Aged coatings should be abraded to achieve an acceptable profile to provide adequate adhesion for the primer and topcoat.

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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: Solid colors may be applied by spray, roller and brush application. Metallic colors should be applied by spray application only. Allow a 5 to 10 minute flash time between coats if spray applied. PC6 should be applied to achieve a recommended dry film thickness between 1.0 to 3.0 mils. For detailed metallic and iridescent application instructions, see Precision Coatings' Guidance: "Metallic and Iridescent Finishes."

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*	.011" - .015"	2500 PSI, 100 mesh filter

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

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 solvent 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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PC6 Series Waterborne Urethane Topcoat

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PERFORMANCE DATA

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

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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