

# Technical Product Data



PRECISION COATINGS

## **PC3v100 Series** **Acrylic Polyurethane Topcoat**

### DESCRIPTION

Aliphatic polyurethane  
Interior and exterior surfaces  
Field and shop application  
Low VOC  
USGBC LEED Version 4 Compliant

Gloss, semi-gloss, satin, eggshell, matte  
Metallic, iridescent (pearl) and solid color  
Chemical resistant  
Superior weathering and durability  
Anti-graffiti formulation available

### TECHNICAL DATA

% SOLIDS by volume	34% as packaged, 38% as applied
SPRAYABLE VOC (as applied)	max. 50 g/l (less water & exempt compounds)
COMPONENTS	PC3 (resin) 3 parts / PC-03 (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	79° F, 26° C
MIX RATIO	3:1 (3 parts PC3v100 : 1 part PC-03 Activator)
RECOMMENDED DRY FILM THICKNESS	2.0 mils to 3.0 mils
THEORETICAL COVERAGE	609 – 203 sq ft at recommended DFT (no loss)

### SURFACE PREPARATION

Best results are achieved when PC3 Topcoat is applied over a two-component primer such as Precision's DTM 1300 High Build Primer. DTM 1300 is 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.

**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, MDF, Drywall** – Surface must be clean, dry and free of any dirt, dust, grease, oil, wax, mildew, disintegrated or chalky materials or other contaminants. PC3 is not recommended for floors.

**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 – MIX RATIO**

Stir or shake each container before mixing together. Mix thoroughly 3 parts PC3 Acrylic Polyurethane Topcoat with 1 part PC-03 Polyurethane Activator.

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

For faster cure times, add up to 8 oz of PCI's 12030 Urethane Accelerator per activated gallon of topcoat. For fisheyes or other related surface defects, add 1 oz of PCI's Fisheye Remover, #15000, per activated gallon of topcoat.

### **APPLICATION FOR "SOLID COLORS" & "METALLIC COLORS"**

**Environmental Conditions:** Air and surface temperature must be above 50° Fahrenheit and no more than 95° 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. PC3 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**

PC3 Acrylic Polyurethane Topcoat may be air dried or force dried

#### Dry times @ 70°F (21°C) and 50% RH

Dust Free	15 minutes
Tack Free	3 hours
Dry Time	24 hours
Recoat	May be recoated with itself at any stage. Sanding will become necessary after 24 hours.
Force Drying:	30-minute flash time / 140° F for 20 min. Allow a 10-min. cool down time

**Temperature Resistance (Dry): Continuous 200°F / Intermittent 250°F**

### **CLEAN UP**

Clean all spray equipment immediately after use. Acetone may be used to clean spray equipment. PCI's 17000 Gun Cleaner is a VOC exempt cleaner and is recommended for cleaning application equipment used to apply the PC3 system.

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

Note: PC3 Acrylic Polyurethane Topcoat is available at higher VOC levels for use in compliant areas. See your Precision Coatings representative for additional information.

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**PERFORMANCE DATA**

TEST METHOD	SYSTEM (7 day, ambient temp. cure)	RESULTS
ASTM D-3359 Adhesion	Cold Rolled Steel Q-Panel Solvent wipe 02150 Metal Conditioner 1.4 mils DFT PC3v100/PC03 Topcoat	100% retention (no tape off)
ASTM D-4587 QUV Resistance Accelerated Weathering	Cold Rolled Steel Q-Panel Solvent wipe 02150 Metal Conditioner 1.4 mils DFT PC3v100/PC03 Topcoat	Gloss - 96% retention after 2020 hours delta E color change - 0.27 after 2020 hours No blistering, rusting, checking or cracking
ASTM B-117 Salt Fog	Cold Rolled Steel Q-Panel Solvent wipe 02150 Metal Conditioner 1.4 mils DFT PC3v100/PC03 Topcoat	No face blistering after 500 hours No face corrosion after 500 hours
ASTM D-2287 Humidity Resistance	Cold Rolled Steel Q-Panel Solvent wipe 02150 Metal Conditioner 1.4 mils DFT PC3v100/PC03 Topcoat	No blistering, cracking, softening or delamination after 500 hours Gloss - 97% retention after 500 hours
ASTM D-1308 Chemical Resistance 24-hour spot test	Cold Rolled Steel Q-Panel Solvent wipe 02150 Metal Conditioner 1.4 mils DFT PC3v100/PC03 Topcoat	87 octane unleaded gasoline - rating 5 no effect 10% Sulfuric Acid (Acid Rain) – rating 5 no effect
ASTM D-5402 Chemical Resistance solvent rubs	Cold Rolled Steel Q-Panel Solvent wipe 02150 Metal Conditioner 1.4 mils DFT PC3v100/PC03 Topcoat	Xylene - 200 double rubs no effect Methyl ethyl ketone (MEK)-200 double rubs no effect 87 octane unleaded gasoline - 200 double rubs no effect.
ASTM D-522 Flexibility	Cold Rolled Steel Q-Panel Solvent wipe 02150 Metal Conditioner 1.4 mils DFT PC3v100/PC03 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.*

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