

# Technical Product Data



PRECISION COATINGS

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

### DESCRIPTION

Aliphatic polyurethane  
Interior and exterior surfaces  
Field and shop application  
Low VOC  
LEED NC 2009 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
COATINGS VOC (as packaged)	max. 50 g/l (less water & exempt compounds)
SPRAYABLE VOC (as applied)	max. 50 g/l (less water & exempt compounds)
COMPONENTS	PC3v100 (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	1.0 mils to 3.0 mils
THEORETICAL COVERAGE	609 – 203 sq ft at recommended DFT (no loss)

### SURFACE PREPARATION

Best results are achieved when PC3v100 Topcoat is applied over two component primer such as PCI's DTM 1300 Series High Build Primer, DTM 1400 Series Non-Sanding Primer or DTM 3000 Series Polyurethane Primer.

PC3v100 Topcoat may be applied over properly prepared substrates including steel, aluminum, galvanizing, decorative metals such as copper and brass, previously coated surfaces, masonry block, and interior wood, not recommended for exterior wood. Recommended preparation is as follows:

**Steel** – Clean the surface of all foreign material 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 of all foreign material 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** – Surface must be cured, clean, dry, and free of contamination and disintegrated or chalky materials. SSPC-SP13 may be used for surface preparation of concrete and masonry block.

**Coated surfaces** – Physically abrade existing coated surfaces. PCI's Paint Prep may also be used to treat existing finishes, including polyurethane finishes. Paint prep eliminates the need for abrasion. The existing finish must be tightly adhered to the substrate.

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## **PC3v100 Series Acrylic Polyurethane Topcoat**

### **INSTRUCTIONS – MIX RATIO**

Stir or shake thoroughly to ensure uniform mixture. Mix 3 parts PC3v100 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:** 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.

### **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*	.015" - .025"	2500 PSI 100 mesh filter

*\*For solid colors only*

### **DRY TIMES**

PC3v100 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

### **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 PC3v100 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 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

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