



# Aliphatic Urethane 5600

## PRODUCT TECHNICAL DATA SHEET

PPC Aliphatic Urethane 5600 is a two-component, low-odor, quick-setting, fast-curing, ultra-high-solids hybrid aliphatic elastomeric topcoat. PPC Aliphatic Urethane 5600 can be installed over properly prepared interior and exterior concrete, plywood, and metal substrates. It is suitable for single-layer or multi-layer applications, can be applied at temperatures as low as 20°F (-6.7°C), and demonstrates strong tolerance to moisture conditions. Ensure the correct product formulation is selected to meet applicable VOC requirements, including federal, state, county, and local regulations in effect at the job site.

### WHERE TO USE

- High-Traffic Vehicular Decks & Ramps
- Pedestrian Balconies & Walkways
- Mechanical Equipment Rooms
- Animal Care Areas / Kennels

### ADVANTAGES

- Environmentally Friendly
- Low Odor
- Rapid Cure
- Non-Outgassing
- Monolithic Finish
- Eco-Conscious Formulation
- Excellent Chemical Resistance
- Complies with USDA Requirements

### THEORETICAL COVERAGE RATES

- Per Coat: 100 sqft per gallon @15 wet mils

**\*Coverage rates may vary depending upon surface porosity, texture, media size, application method and prior coating application. Excessive build up should be avoided.**

### PACKAGING & COLORS

Available in 4.4 gallons (4 gallons Part A and 0.4 gallons Part B)

Available in Medium Gray.

Refer to PPC color chart.

**Additional custom colors are available. Minimum order quantity: 500 gallons.**

### SHELF LIFE AND STORAGE

PPC Aliphatic Urethane 5600 has a shelf life of one (1) year from the date of manufacture when stored indoors at temperatures between 60°F and 95°F (15°C to 35°C) in original, unopened containers.

### PHYSICAL/CHEMICAL CHARACTERISTICS

Dry Film Thickness (excluding aggregate)..... 14 ± 2 mils

Coverage Rate (per coat @ 1 gal / 100 sq ft).....356 ± 50 microns

Mix Ratio (A:B)..... 10:1

Working Time (Pot Life) @ 75°F (24°C), 50% RH.....30 ± 10 minutes

Cure Time @ 75°F (24°C), 50% RH..... 2–4 hours

Viscosity @ 75°F (24°C)..... Part A: 1500–2500 cps  
Part B: 50–100 cps

Specific Gravity: Part A..... 1.1 ± 0.1 Part B: 0.94 ± 0.1

Solids Content by Weight (ASTM D-2369)..... 88 ± 2%

Solids Content by Volume (ASTM D-2369).....87 ± 2%

Hardness (ASTM D-2240, Shore A).....85 ± 5

Tensile Strength (ASTM D-412).....3200 ± 10% psi  
(22.1 ± 10% MPa)

Elongation at Break (ASTM D-412).....450 ± 10%

Adhesion (Peel Strength on Primed Concrete, ASTM D-903) .....40 ± 10% pli (7.0 ± 10% kN/m)

Moisture Vapor Transmission (ASTM E-96).....1.54 perms

Water Absorption (ASTM D-471).....1.3% by weight

Tear Resistance (ASTM D-624).....300 ± 20% pli (52.6 ± kN/m)

Volatile Organic Content (VOC).....< 0.5 lbs/gal

ASTM D-2369-81.....< 60 g/L

UV Resistance (Q-Panel Weather-O-Meter).....2000 hours exposure with no cracking, crazing, or physical degradation

### OVERVIEW OF INSTALLATION STEPS

**Mandatory Mockup:** A 100-200 sq/ft mockup should be installed as a guide for installation and quality control panel days or weeks before the actual installation of the coating system. The mockup should be approved by an authorized representative of the Property Management for Slip Resistance, aesthetics, and functionality.

Use **Premera Fusion FPI Fusion Primer** for intercoat adhesion between existing urethane coatings.

**Moisture Testing:**

Concrete floors, especially those not poured over a proper vapor barrier (plastic), are subject to possible moisture vapor transmission which may result in bubbling and/or failure of high-performance coatings. Basic moisture testing can be performed by placing a 4' x 4' sheet of plastic on the concrete surface and securely taping it down on all edges. If after 24 hours the concrete is still dry below the plastic, the surface should be ready to coat. If moisture is present, the coating applicator should perform calcium chloride and relative humidity probe testing to determine if excessive levels of vapor emissions are present before applying any coatings.

**Surface Preparation:**

Substrates must be clean, dry, and structurally sound, free of voids, pinholes, bugholes, rock pockets, honeycombing, protrusions, excessive roughness, foreign matter, frost, ice, or any contaminants that may interfere with adhesion or performance of the coating system.

Utilize appropriate abrasive preparation methods to remove residues such as form release agents, curing compounds, chemical contaminants, and other surface treatments. Eliminate mortar splatter, saw-cut debris, mill scale, corrosion, loose materials, and all other contaminants from the surface.

Concrete, masonry, and ferrous metal substrates must be properly prepared to receive the coating system outlined in this section. Depending on the condition of the surface, a minimum 3,500 psi pressure wash may be acceptable prior to shot blasting. For specific recommendations, contact the manufacturer.

Surface preparation may be performed by shot blasting or by utilizing appropriate profile and etching cleaners. Peel and adhesion testing are strongly recommended.

**CONCRETE:**

1. Provide a surface with a smooth finish, followed by a light broom (fine-bristle) texture.
2. All existing concrete repairs must be evaluated and approved prior to coating application.
3. Any unsound or deteriorated areas must be removed and repaired before proceeding.
4. Concrete surfaces must be mechanically prepared to achieve a medium sandpaper-like profile, equivalent to ICRI CSP #3 or greater.
5. Surface preparation may be completed by shot blasting or through the use of suitable profiling and etching cleaners. Peel and adhesion tests are recommended to verify proper surface readiness.

**MIXING**

Prior to application, pre-mix Side A of PPC Aliphatic Urethane 5600 using a mechanical mixer at low speed. Gradually add Side B while continuously blending until a uniform consistency and color are achieved. Take care to avoid entraining air during mixing, as this may result in pinholes, blistering, and/or reduced working time. To maintain color uniformity, intermix (box) the remaining material from the previous batch with the new batch to minimize shade or color variation.

**Application:**

Apply PPC Aliphatic Urethane 5600 uniformly across the entire surface at a 10:1 mix ratio. Install using a notched squeegee or notched roller to achieve consistent film build. Maintain a continuous application process to minimize lap lines and streaking.

To ensure proper intercoat adhesion, subsequent coats must be applied within 24 hours.

**Curing:**

At 77°F (25°C) and 50% relative humidity, allow each coat to cure for a minimum of 2–4 hours. If more than 24 hours elapse between coats, re-prime the surface using an appropriate intercoat primer prior to recoating. Under the same conditions, allow a minimum of 48 hours before permitting light pedestrian traffic, and at least 72 hours before allowing heavy pedestrian or vehicular traffic on the finished surface.

PPC Aliphatic Urethane 5600 is sensitive to temperature and moisture conditions. Elevated temperatures and high humidity levels may accelerate cure times and impact working time.

**Equipment clean-up:**

All tools and equipment should be cleaned immediately after using an environmentally compliant solvent, in accordance with applicable local regulations.

**FOR BEST RESULTS**

- Apply only to properly prepared, clean, and dry substrates meeting the required surface profile (ICRI CSP guidelines).
- Maintain consistent mixing ratios and thoroughly blend components to ensure uniform performance and appearance.
- Apply within recommended temperature and humidity ranges to optimize working time and curing performance.
- Use material from the same batch or box multiple batches together to minimize color or gloss variations.
- Perform a mock-up or test area prior to full application to verify aesthetics, coverage, and system compatibility.
- Ensure continuous application to avoid lap marks, roller lines, or uneven film build.
- Always follow recommended recoat windows to maintain proper intercoat adhesion.
- Store materials in controlled conditions prior to use to maintain product integrity and workability.

**LIMITATIONS****Concrete:**

The following conditions are not suitable for coating with PPC Aliphatic Urethane 5600 or similar deck coating systems: on-grade or below-grade slabs, split slabs with buried membranes, insulated sandwich slabs, slabs over unventilated metal decking, suspended pool decks, and swimming pool decks without the use of an appropriate vapor barrier system.

PPC assumes no responsibility for installations over magnesite, gypsum-based lightweight concrete, or substrates incorporating chained or studded trays.

1. Concrete must exhibit a minimum compressive strength of 3000 psi. A surface profile equivalent to ICRI CSP #3 or greater is required prior to application.
2. Concrete substrates must be cured for a minimum of 28 days unless otherwise approved in writing. Newly placed concrete should be finished in accordance with American Concrete Institute (ACI) standards, followed by a light broom finish. Surfaces must be free of dust, debris, ridges, projections, voids, laitance, and any contaminants that may negatively affect adhesion or performance. Light broom-finished concrete should be pressure washed prior to coating.
3. Perform proper surface cleaning in accordance with standard preparation guidelines. Preparation may include shot blasting or the use of suitable profiling and etching solutions. Adhesion and peel testing are recommended.

4. PPC assumes no liability for substrate deficiencies, including but not limited to insulation systems, unventilated slabs, magnesite, or lightweight concrete conditions.

PPC Decking Systems are not designed to resist hydrostatic pressure in on-grade applications unless a properly specified vapor barrier is incorporated. Contact PPC for project-specific recommendations.

Substrates must be clean, dry, and free of contaminants prior to application.

Clear coatings may develop a hazy or cloudy appearance due to moisture exposure, particularly in exterior environments.

Opened containers should be used promptly to prevent material degradation.

Do not thin or dilute under any circumstances.

#### **LIMITED WARRANTY**

PPC warrants its products to be free of manufacturing defects and that they will meet PPC current published physical properties. PPC warrants that its products, when properly installed by a state licensed contractor according to PPC guide specifications and product data sheets over a sound, properly prepared substrate, will not fail for a period of 12 months. Seller's sole responsibility shall be to replace that portion of the product which proves to be defective. There are no other warranties by PPC of any nature whatsoever expressed or implied, including any warranty of merchantability or fitness for a particular purpose in connection with this product. PPC shall not be liable for damages of any sort, including remote or consequential damages resulting from any claimed breach of any warranty whether expressed or implied. PPC shall not be responsible for use of this product in a manner to infringe on any patent held by others. In addition, no warranty or guarantee is being issued with respect to appearance, color, fading, chalking, staining, shrinkage, peeling, normal wear and tear or improper application by the applicator. Damage caused by abuse, neglect and lack of proper maintenance, acts of nature and/or physical movement of the substrate or structural defects are also excluded from the limited warranty. PPC reserves the right to conduct performance tests on any material claimed to be defective prior to any repairs by owner, general contractor, or applicator.

#### **DISCLAIMER**

All guidelines, recommendations, statements, and technical data contained herein are based on information and tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty, either expressed or implied. It is the users responsibility to satisfy himself, by his own information and test, to determine suitability of the product for his own intended use, application and job situation and user assumes all risk and liability resulting from his use of the product. We do not suggest or guarantee that any hazard listed herein are the only ones which may exist. Neither seller nor manufacturer shall be liable to the buyer or any third person for any injury, loss or damage directly or indirectly resulting from use of, or inability to use, the product. Recommendations or statements, whether in writing or oral, other than those contained herein shall not be binding upon the manufacturer, unless in writing and signed by a corporate officer of the manufacturer. Technical and application information is provided for the purpose of establishing a general profile of the material and proper application procedures. Test performance results were obtained in a controlled environment and PPC makes no claim that these tests or any other tests, accurately represent all environments. For further information please contact us at the following email address: [orders@premierprotectivecoatings.com](mailto:orders@premierprotectivecoatings.com) or visiting [www.premierprotectivecoatings.com](http://www.premierprotectivecoatings.com)

#### **DISPOSAL**

Any surplus material, including both Part A and Part B components, should be combined and allowed to cure. Upon curing, the product can be disposed of without any restrictive conditions. Uncured materials should be securely stored in an appropriate sealed container and disposed of in strict adherence to the applicable provincial, state, municipal, and federal regulations.

#### **CAUTION**

ALWAYS KEEP OUT OF THE REACH OF CHILDREN  
KEEP FROM FREEZING CONDITIONS  
INTENDED FOR INDUSTRIAL USE ONLY