



# TOPSHIELD® 5600EF

A Two Component, Low Odor, High Solids, Aliphatic Topcoat

### 1.01 DESCRIPTION

Topshield® 5600EF is a two-component, odor-friendly, fast-setting, rapid-curing very high-solids hybrid aliphatic elastomeric topcoat. Topshield® 5600EF can be applied to properly prepared interior or exterior concrete, plywood and metal surfaces. It is suitable for single or multiple applications, in temperatures as low as 20°F (-6.7°C) and is insensitive to moisture. Be sure to use the right product grade that complies with VOC regulations as per federal, state, statutory bodies, county and city regulations/codes at the place of installation of product.

### 1.02 FEATURES

- Environmentally Friendly
- Low Odor
- Fast Curing
- Non-Gassing
- Seamless
- Environmentally Safe
- Good Chemical Resistance
- Meets USDA Criteria

### 1.03 TYPICAL USES

- Heavy Duty Vehicular Decks & Ramps
- Pedestrian Balcony & Breezeways
- Mechanical Room Floors
- Kennels

### 1.04 COLORS

Gray.

Custom colors are also available. Minimum order of 500 gallons. See color chart for special provisions.

### 1.05 PACKAGING

4.4-gallon kit: One 5 gallons (net 4 gallons, 15.1 liters) pail of Side-A and one 1/2 gallon (net 0.4 gallon, 1.5 liters) jar of Side-B.

### 1.06 SURFACE PREPARATION

- Install a 100-200 sqft (9.30-18.58 sqm) mock up of the system to be installed and approve for aesthetics, color, texture, actual coverage rates and functionality before proceeding. Use Enviro-Grip™ PUR#555 primer for intercoat adhesion between existing urethane coatings.
- Surfaces shall be broomed clean, dry, sound and free of voids, bugholes, rockpockets, honeycombs, protrusions, excessive roughness, foreign matter, frost, ice and other contaminants which may inhibit application or performance of the water-proof coating system.
- Use suitable abrasive methods, remove residue of form release, curing compounds, chemical retarders, and other surface treatments, mortar smear, saw-cutting residue, mill scale, rust, loose material and other contaminants from

## TECHNICAL DATA

(Based on draw down film).

|  |   |
|--|---|
| Dry Film Thickness, Exclusive of aggregate,            | 14± 2 mils                              |
| Per Coat @ 1 gal/100sqft                               | 356 ± 50 microns                        |
| Mix Ratio  | A:B - 10:1                              |
| Pot Life at 75°F (24°C) at 50% RH                      | 30 ± 10 minutes                         |
| Cure Time at 75°F (24°C) at 50% RH                     | 2-4 hours                               |
| Viscosity at 75°F (24°C)                               | A-Side: 1500-2500<br>B-Side: 50-100     |
| Specific Gravity                                       | A-Side: 1.1 ± 0.1<br>B-Side: 0.94 ± 0.1 |
| Solids by Weight ASTM D-2369                           | 88 ± 2%                                 |
| Solids by Volume ASTM D-2369                           | 87 ± 2%                                 |
| Hardness, ASTM D-2240 Shore A                          | 85 ± 5                                  |
| Tensile Strength, ASTM-D412                            | 3200 ± 10% psi (22.1 ± 10% MPa)         |
| Percent Elongation, ASTM D-412                         | 450 ± 10%                               |
| Adhesive Peel Strength on Primed Concrete;             |   |
| ASTM D-903   | 40± 10% pli (7.0 ± 10% kNm)             |
| 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 ± kNm                |
| Volatile Organic Compounds, ASTM D-2369-81             | <0.5 lbs/gal<br><60 gm/liter            |
| U.V. Stability, Q Panel Weather-O-Meter                |   |
| 2000 Hours (No Cracking or Crazing; No Physical Damage |   |

concrete, masonry, and ferrous metal surfaces to receive the work in this section. Depending on the condition of the deck a minimum of 3,500 to 5000 psi powerwash may be acceptable or shotblasting. Contact Poly-Tuff Systems International (PSI) for project specific recommendations. Surface preparation may be completed by shot blasting or the use of Poly-Tuff Profile and Etch cleaner. Peel and adhesion tests are recommended.

#### D. CONCRETE:

1. Provide a surface with a smooth finish, followed by a fine-hair broom.
2. All previous concrete patches must be sounded and inspected for acceptability prior application of the coating.
3. Unsound patches are to be replaced for acceptability prior to application of the coating.
4. Unsound patches are to be replaced. Concrete surfaces require a medium sandpaper finish equal to or greater than an ICRI CSP #3.
5. Surface preparation may be completed by shotblasting or the use of Poly-Tuff Profile and Etch cleaner. Peel and adhesion tests are recommended.

#### 1.07 MIXING

Before application, pre-mix Side-A of Topshield® 5600EF using a mechanical mixer at slow speed. Add Side-B of Topshield® 5600EF and continue mixing until a homogeneous mixture and color is obtained. Use caution not to whip air into the material as this may result in pinhole blisters and/or shortened pot life. Box the last gallons of the last used batch numbers with the new batch number to prevent hue or shading variation.

#### APPLICATION

##### 2.01 APPLICATION BASICS

Apply Topshield® 5600EF evenly, over the entire deck using a 10:1 ratio. Apply by notched squeegee or notched trowel over the entire deck. Requires a continuous coating application to minimize line and/or streaking. To obtain proper adhesion between coats, it is imperative that recoating be completed within 24 hours.

##### 2.02 CURING

At 77°F (25°C) and 50% relative humidity, allow each coat to cure a minimum of 2-4 hours. If more than 24 hours passes between coats, reprime the surface with Enviro-Grip™ EP#1 before proceeding. At 77°F (25°C) and 50% relative humidity, allowing a minimum 48 hours before permitting light pedestrian traffic and at least 72 hours before permitting heavy pedestrian or vehicular traffic and at least 72 hours before permitting heavy pedestrian or vehicular traffic on the finished surface. Topshield® 5600EF is sensitive to heat and moisture. Higher temperatures and/or high

humidity will accelerate the cure time. Use caution in batch sizes. Do not use Topshield® Accelerator with Topshield® 5600EF, an already fast curing material.

##### 2.03 EQUIPMENT CLEANUP

Equipment should be cleaned with an environmentally-safe solvent, as permitted under local regulations, immediately after use.

##### 2.04 STORAGE

Topshield® 5600EF has a shelf life of one (1) year from date of manufacture when stored indoors at a temperature between 60°F to 95°F (15°C to 35°C) in original, factory sealed containers.

##### 2.05 LIMITATIONS

###### • Concrete:

The following conditions must not be coated with PSI Deck Coating Systems or products: on grade or below grade slabs, split slabs with buried membrane, sandwich slabs with insulation, slabs over unventilated metal pan, suspended pool, and swimming pool decks without the use of Enviro-Grip™ 404FC primer and asphalt surfaces, asphalt overlays without the express written consent of PSI. PSI Deck Coating is not recommended over magnesite, gypsum lightweight and where chained or studded tires may be used.

1. Concrete must exhibit 3000 psi minimum strength. An ICRI CSP 3 surface or greater is required for concrete surfaces to be coated.
  2. New concrete must be cured for 28 days unless otherwise approved by PSI in writing. New surfaces to be coated must be trowel finished in compliance with the American Concrete Institute, followed by a fine hair brooming, left free of loose particles, and shall be without ridges, projections, voids and concrete droppings that would be mechanically detrimental to coating application or function. Light broom finished concrete should be power washed before coating application.
  3. Concrete cleaning (see General & Safety Guidelines). Surface preparation may be completed by shot-blasting or the use of Poly-Tuff Profile and Etch cleaner. Peel and adhesion tests are recommended.
  4. PSI assumes no liability for substrate defects, insulation, slabs over unvented metal pan, magnesite, and lightweight concrete.
- PSI Decking Systems will not withstand hydrostatic pressure on slab-on-grade decks without the use of vapor barrier. Consult PSI for project specific recommendations.
  - Surfaces must be dry, clean and free of foreign matter.
  - Clear coating may turn opaque and cloudy due to moisture penetration, especially in exterior applications.
  - Containers that have been opened must be used as soon as possible.
  - Do not dilute under any circumstance.

###### **WARNING: This product contains isocyanates.**

**This product is considered Dangerous Goods. DOT regulations classify it as: Side-B: UN 1760, Corrosive Liquid, N.O.S. (Contains Amine), Class 8, PG III.**

Please read all information in the General & Safety Guidelines, Technical Data Sheets, Guide Specifications and Safety Data Sheets (SDS) before applying material. PSI Products are for "Professional Use Only" and preferably applied by professionals who have prior experience with the PSI Products or have undergone training in application of PSI Products. Published technical data and instructions are subject to change without notice. Contact your local PSI representative or visit our website for current technical data, instructions, and project specific recommendations.

###### **LIMITED WARRANTY**

PSI warrants its products to be free of manufacturing defects and that they will meet PSI current published physical properties. PSI warrants that its products, when properly installed by a state licensed waterproofing contractor according to PSI guide specifications and product data sheets over a sound, properly prepared substrate, will not allow water migration 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 PSI of any nature whatsoever expressed or implied, including any warranty of merchantability or fitness for a particular purpose in connection with this product. PSI 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. PSI 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. PSI 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 PSI makes no claim that these tests or any other tests, accurately represent all environments.