



TOPSHIELD® 500/500EF

A Single Component, Aromatic Topcoat for Use on Concrete and Plywood

1.01 DESCRIPTION

Topshield® 500 is an aromatic, one-component, liquid-applied, moisture-cured, urethane topcoat. Topshield® 500 is 250 VOC and Topshield® 500EF is 100 VOC. 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

- Good Weatherability

1.03 TYPICAL USES

- Concrete Decks
- Plywood Decks
- Pedestrian Traffic
- Vehicular Traffic
- Recoating Existing Urethane Surfaces
- Metal, Wood or Masonry Surfaces

1.04 COLOR

Light gray, tan

Custom colors are also available. Minimum order of 300 gallons (1136 liters).

1.05 PACKAGING

1 gallon (3.78 liter) can with vial of catalyst

5 gallon (18.9 liter) pail with 1/2 pint (0.24 liter) can of catalyst

55 gallon drum, net fill 50 gallons (189 liters) with 2 1/2 quart (2.36 liters) can of catalyst

1.06 SURFACE PREPARATION

Refer to General and Safety Guidelines for complete information. 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.

1.07 MIXING

Before application, mix Topshield® 500/500EF using a mechanical mixer (Jiffy Mixer) at slow speeds or by hand for at least 5 minutes. Add Topshield® 500 Catalyst and continue mixing until a homogeneous mixture and color is obtained. Boxing of the material is recommended. Use caution not to whip too much air into the material as this may result in pinhole blisters or shortened pot life.

APPLICATION

2.01 APPLICATION BASICS

For best results use a squeegee. Airless sprayer or phenolic-resin-core roller may be used but extra care should be taken not to cause air bubbles.

TECHNICAL DATA

Topshield® 500. 250 VOC (Based on draw down film).

Dry Film Thickness Per Coat @ 1 gal/100sqft	12 ± 2 mils 305 ± 50 microns
Tear Resistance, Die C, ASTM D-624	250 ± 50 pli 43.8 ± 8.8 kNm
Hardness, ASTM D-2240	90 ± 5 Shore A
Tensile Strength, ASTM-D412	3000 ± 200 psi 20.7 ± 1.4 MPa
Ultimate Elongation, ASTM D-412	450 ± 50%
Specific Gravity	1.15 ± 0.1
Total Solids by Weight, ASTM D-2369	80 ± 2%
Total Solids by Volume, ASTM D-2697	74 ± 2%
Viscosity at 75°F (24°C)	1500 ± 500 cps
Volatile Organic Compounds, ASTM D-2369-81	2.03 lbs/gal 243 gm/liter

TECHNICAL DATA

Topshield® 500EF. 100 VOC (Based on draw down film).

Dry Film Thickness Per Coat @ 1 gal/100sqft	14 ± 2 mils 356 ± 50 microns
Tear Resistance, Die C, ASTM D-624	300 ± 50 pli 52.6 ± 8.8 kNm
Hardness, ASTM D-2240	90 ± 5 Shore A
Tensile Strength, ASTM-D412	2500 ± 200 psi 17.2 ± 2.1 MPa
Ultimate Elongation, ASTM D-412	500 ± 50%
Specific Gravity	1.197 ± 0.1
Total Solids by Weight, ASTM D-2369	92.5 ± 2%
Total Solids by Volume, ASTM D-2697	90 ± 2%
Viscosity at 75°F (24°C)	4000 ± 500 cps
Volatile Organic Compounds, ASTM D-2369-81	0.74 lbs/gal 89 gm/liter

Apply Topshield® 500/500EF evenly over the entire deck. Application should be continuous to ensure a smooth and level coat with no lines or streaks to disfigure the deck finish.

Topshield® 500/500EF may require more than one coat depending on the job specifications and requirements. To obtain proper adhesion between coats it is imperative that recoating be done within 48 hours.

Refer to individual Systems Description under System Specifications Section of the Poly-Tuff Systems International (PSI) catalog or website for specific coverage rates.

When Topshield® 500/500EF is used as a seal coat only, the surface must be clean, dry and primed with recommended PSI Primer to achieve proper adhesion to the surface.

Coverage rates and cure times will vary depending on temperature, relative humidity, surface roughness and porosity, aggregate selection and embedment, and application technique. Coverage rates provided are optimal and are not guaranteed.

2.02 CURING

At 70°F (21°C) and 50% relative humidity allow each coat to cure a minimum of 16 hours between each coat. If more than 48 hours passes between coats, re-prime the surface with recommended PSI Primer before proceeding.

Allow 24 hours before permitting light pedestrian traffic and at least 72 hours before permitting heavy pedestrian or auto traffic on the finished surface.

Uncured Topshield® 500/500EF is very sensitive to heat and moisture. Higher temperatures and/or high humidity will accelerate the cure time. Use caution in batch sizes and thickness of application. Low temperature and/or low humidity extend the cure time. To accelerate cure, Topshield® Accelerator may be used.

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® 500/500EF 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

- Surfaces must be dry, clean and free of foreign matter.
- May fade, chalk and discolor over time.
- Containers that have been opened must be used as soon as possible.
- Do not dilute with solvent under any circumstance.
- The following conditions must not be coated with PSI deck coating systems: On grade or below grade slabs, split slabs with buried membrane, sandwich slabs with insulation, slabs over unvented metal pans, suspended pool decks, swimming pools, magnesite, light weight concrete, asphalt, surfaces and asphalt overlays.

WARNING: This product contains isocyanates and solvent.

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.