



2250 E. Tropicana Ave Phone: (866) 977-8833
 Suite 19-600 Fax: (800) 804-0182
 Las Vegas, NV 89119 Email: sales@polytuffus.com
 Web: www.polytuffus.com

TOPSHIELD® EST
*One Part Polyester High Performance
 Aliphatic Exterior Topcoat*

DESCRIPTION

Topshield® EST is a polyester, aliphatic, single component, liquid applied, moisture cured, urethane polyurea surface topcoat for waterproofing membrane systems.

FEATURES

- ❖ Very Durable
- ❖ Excellent Weatherability
- ❖ Seamless Waterproofing Membrane
- ❖ UV Resistant For Superior Gloss Retention
- ❖ For use in California, excluding SCAQMD areas, use only Topshield® EST(CAL)
- ❖ For use in SCAQMD areas, use only Topshield® EST(SC)

TYPICAL USES

- ❖ Concrete
- ❖ Vehicular Traffic
- ❖ Plywood
- ❖ Heavy Pedestrian Traffic
- ❖ Re-sealing Existing Urethane Surfaces
- ❖ Most Metal, Wood, or Masonry Surfaces

COLOR

Light Grey, Medium Grey, Dark Grey, Tan, Dark Tan, Brick Red, Chocolate, White

Custom colors are also available. Minimum order of 100 gallons (380 liters).

PACKAGING

- 1 gallon (3.78 liter) can
- 5 gallon (19 liter) pail
- 55 gallon drum, net fill 50 gallons (189 liters)

MIXING

Before application, mix Topshield® EST using a mechanical mixer (Jiffy Mixer) at slow speeds until a homogeneous mixture and color is obtained. Topshield® EST may also be mixed by hand for at least five minutes. Use caution not to whip too much air into the material as this may result in pinhole blisters or shortened potlife.

**TECHNICAL DATA: TOPSHIELD® EST, Pigmented
 (For Use Outside of California)**

Coverage Rate	See Guide Specification
Dry Film Thickness, exclusive of aggregate, Per coat @ 1 gal/100 sq. ft.	10 ± 2 mils 254 ± 50 micron
Hardness, ASTM D-2240	95 ± 5 Shore A
Tear Resistance, Die C, ASTM D-624	500 ± 50 pli 87.6 ± 10 kN/m
Tensile Strength, ASTM D-412	3800 ± 300 psi 26.2 ± 2 MPa
Ultimate Elongation, ASTM D-412	250 ± 25%
Specific Gravity	1.14
Total Solids by Weight, ASTM D-2369	70 ± 2%
Total Solids by Volume, ASTM D-2697	61 ± 2%
Viscosity at 75°F (24°C)	1200 ± 600 cps
Volatile Organic Compounds, ASTM D-2369-81	2.79 lb/gal 334 gm/liter

**TECHNICAL DATA: TOPSHIELD® EST(CAL), Pigmented,
 (For Use In California Excluding SCAQMD Areas)**

Coverage Rate	See Guide Specification
Dry Film Thickness, exclusive of aggregate, Per coat @ 1 gal/100 sq. ft.	10 ± 2 mils 254 ± 50 micron
Hardness, ASTM D-2240	95 ± 5 Shore A
Tear Resistance, Die C, ASTM D-624	450 ± 50 pli 78.8 ± 10 kN/m
Tensile Strength, ASTM D-412	4000 ± 400 psi 27.6 ± 2.7 MPa
Ultimate Elongation, ASTM D-412	200 ± 25%
Specific Gravity	1.25
Total Solids by Weight, ASTM D-2369	71 ± 2%
Total Solids by Volume, ASTM D-2697	65 ± 2%
Viscosity at 75°F (24°C)	1500 ± 1000 cps
Volatile Organic Compounds, ASTM D-2369-81	2.09 lb/gal (with exempt solvent) 250 gm/liter

**TECHNICAL DATA: TOPSHIELD® EST(SC), Pigmented,
 (For Use in SCAQMD Areas)**

Coverage Rate	See Guide Specification
Dry Film Thickness, exclusive of aggregate, Per coat @ 1 gal/100 sq. ft.	12 ± 2 mils 305 ± 50 micron
Hardness, ASTM D-2240	95 ± 5 Shore A
Tear Resistance, Die C, ASTM D-624	500 ± 50 pli 87.6 ± 10 kN/m
Tensile Strength, ASTM D-412	3500 ± 400 psi 24.1 ± 2.7 MPa
Ultimate Elongation, ASTM D-412	200 ± 25%
Specific Gravity	1.31
Total Solids by Weight, ASTM D-2369	75.6 ± 2%
Total Solids by Volume, ASTM D-2697	73.4 ± 2%
Viscosity at 75°F (24°C)	2000 ± 500 cps
Volatile Organic Compounds, ASTM D-2369-81	0.82 lb/gal (with exempt solvent) 98 gm/liter

APPLICATION

Apply Topshield® EST evenly over the entire deck. For best results, airless sprayer or phenolic resin core roller may be used but extra care should be taken not to cause air bubbles.

Topshield® EST may require more than one coat depending on the job specifications and requirements. When estimating material requirements, coverage rates tend to increase for subsequent coats of material. To obtain proper adhesion between coats it is imperative that recoating be done within 48 hours.

CURING

At 70°F (21°C) and 50% relative humidity, allow each coat to cure a minimum of 16 hours between each coat.

Allow 24 hours before permitting light pedestrian traffic and at least 72 hours before permitting heavy pedestrian or auto traffic on to the finished surface. If more than 48 hours passes between coats, re-prime the surface with recommended PSI Primer before proceeding.

Uncured Topshield® EST 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.

**TECHNICAL DATA: TOPSHIELD® EST, Clear
(For Use Outside of California)**

Coverage Rate	See Guide Specification
Dry Film Thickness, exclusive of aggregate, Per coat @ 1 gal/100 sq. ft.	10 ± 2 mils 254 ± 50 micron
Hardness, ASTM D-2240	95 ± 5 Shore A
Tear Resistance, Die C, ASTM D-624	500 ± 50 pli 87.6 ± 10 kN/m
Tensile Strength, ASTM D-412	5500 ± 500 psi 37.9 ± 3.4 MPa
Ultimate Elongation, ASTM D-412	250 ± 30%
Specific Gravity	0.988
Total Solids by Weight, ASTM D-2369	66.2%
Total Solids by Volume, ASTM D-2697	61.7%
Viscosity at 75°F (24°C)	500 ± 300 cps
Volatile Organic Compounds,	2.78 lb/gal 334 gm/liter

Low temperature and/or low humidity extend the cure time.

To accelerate cure, topcoat Accelerator may be used.

EQUIPMENT CLEANUP

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

STORAGE

Topshield® EST has a shelf life of twelve (12) months from date of manufacture in original, factory sealed containers.

LIMITATIONS

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.

Surface may be slippery when wet.

Containers that have been opened must be used as soon as possible.

Do not dilute under any circumstance.

WARNING

This product contains Isocyanates and Solvent.

Please read all information in the general guidelines, product data sheets, guide specifications and material safety data sheets (MSDS) before applying material. Published technical data and instructions are subject to change without notice. Contact your local PSI representative or visit our website for current technical data and instructions.

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.