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TOPSHIELD® EST-FR
*Two Part, Polyester Aliphatic
 Topcoat for Fire Rated System*

DESCRIPTION

Topshield® EST-FR is a fire rated polyester aliphatic, two component, liquid applied, moisture cured, urethane polyurea coating.

FEATURES

- ❖ Excellent Durability
- ❖ Fire Retardant
- ❖ Excellent Weatherability
- ❖ Excellent UV Resistance For Gloss Retention
- ❖ For use in California, excluding SCAQMD areas, use only Topshield® EST-FR (CAL)
- ❖ For use in SCAQMD areas, use only Topshield® EST(SC)-FR

TYPICAL USES

- ❖ Concrete
- ❖ Plywood
- ❖ Heavy Pedestrian Traffic
- ❖ Vehicular Traffic

COLORS

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

6 gallon kit: One 6 gallon (22.68 liter) pail containing 1 gallon bag of Topshield® EST-FR Part-1 Powder and One 5 gallon (18.9 liter) pail containing 5 gallons of Topshield® EST-FR Part-2 Liquid.

MIXING

The volume mixing ratio is 1 part Topshield® EST-FR Part-1 Powder to 5 parts of Topshield® EST-FR Part-2 Liquid.

Step 1: Mix the Topshield® EST-FR Part-2 Liquid using a mechanical mixer (Jiffy Mixer) at slow speeds or by hand for at least 5 minutes until a homogeneous mixture and color is obtained. Use caution not to whip too much air into the

**TECHNICAL DATA, TOPSHIELD® EST-FR
 (For Use Outside of California)**

Coverage Rate, per 100 sq. ft.	1¼ gal. 0.51 l/m ²
Dry Film Thickness per Coat	11 ± 2 dry mils 279 ± 50 micron
Hardness, ASTM D-2240	95 ± 5 Shore A
Specific Gravity	1.36
Total Solids by Weight, ASTM D-2369	79 ± 2%
Total Solids by Volume, ASTM D-2697	68 ± 2%
Viscosity at 75°F (24°C)	2400 ± 500 cps
Volatile Organic Compounds, ASTM D-2369-81	2.33 lb/gal 280 gm/liter

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

Coverage Rate, per 100 sq. ft.	1¼ gal. 0.51 l/m ²
Dry Film Thickness per Coat	11 ± 2 dry mils 279 ± 50 micron
Hardness, ASTM D-2240	95 ± 5 Shore A
Specific Gravity	1.42
Total Solids by Weight, ASTM D-2369	79 ± 2%
Total Solids by Volume, ASTM D-2697	71 ± 2%
Viscosity at 75°F (24°C)	2700 ± 500 cps
Volatile Organic Compounds, ASTM D-2369-81 (with exempt solvent)	1.67 lb/gal 200 gm/liter

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

Coverage Rate, per 100 sq. ft.	1¼ gal. 0.51 l/m ²
Dry Film Thickness per Coat	15 ± 2 dry mils 381 ± 50 micron
Hardness, ASTM D-2240	95 ± 5 Shore A
Specific Gravity	1.49
Total Solids by Weight, ASTM D-2369	82 ± 2%
Total Solids by Volume, ASTM D-2697	77 ± 2%
Viscosity at 75°F (24°C)	3500 ± 500 cps
Volatile Organic Compounds, ASTM D-2369-81(with exempt solvent)	0.70 lb/gal 85 gm/liter

material as this may result in pinhole blisters or shortened potlife.

Step 2: Remove plastic bag of Topshield® EST-FR Part-1 Powder from the 6 gallon (22.68 liter) pail and set aside. Fill this empty container half full with the pre-mixed Topshield® EST-FR Part-2 Liquid. Slowly add Topshield® EST-FR Part-1 Powder, mixing with mechanical mixer. Ensure that all powder is transferred from the bag to the container. Continue mixing until no lumps are present, again being careful not to entrap air in the mixture.

Step 3: When Topshield® EST-FR Part-1 Powder has been thoroughly blended into Topshield® EST-FR Part-2 Liquid add the rest of Topshield® EST-FR Part-2 Liquid. Mix with mechanical mixer until uniform mixture is obtained. Mixed material must be used within 2-4 hours of mixing the two components.

APPLICATION

For best results, airless sprayer or phenolic resin core roller may be used but extra care should be taken not to cause air bubbles.

Apply Topshield® EST-FR mixture 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.

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 vehicular traffic on the finished surface.

Uncured Topshield® EST-FR 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.

EQUIPMENT CLEANUP

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

STORAGE

Topshield® EST-FR 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.

Surface may be slippery when wet.

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

Do not dilute under any circumstance.

Mix only materials that can be used within 2-4 hours.

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

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