



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

FLEXIDECK® E-ML

*Heavy Duty Metal Lath Reinforced
 TDI Free Decking System
 for Wood Substrates*

SYSTEM DESCRIPTION

1.01 Flexideck® E-ML is a fluid applied, reinforced, polyurethane, water catalyzed, waterproof decking system incorporating a E-Tuff® Sand Slurry mixture installed over mechanically fastened metal lath, in combination with a top coating membrane.

A. The system utilizes a primer over metal flashings, E-Tuff® Sand Slurry over attached 2½ lbs. galvanized Metal Lath and two coats of an aliphatic urethane topcoat. Flexideck® E-ML protects surfaces against spalling, freeze/thaw damage and chemicals commonly encountered on these surfaces. It is an elastomeric system designed to expand and contract with normal structural movements. Flexideck® E-ML is a proven waterproofing system primarily used on plywood or OSB. The product is not limited to these usages and may also be installed without the expanded metal lath over metal and concrete substrates.. Installed and maintained properly, Flexideck® E-ML decking system will ensure years of service.

1.02 FEATURES

- ❖ TDI Free Patented Technology
- ❖ Seamless
- ❖ Elastomeric
- ❖ Non-Gassing
- ❖ Fast-Curing
- ❖ Recoatable
- ❖ Good Weatherability
- ❖ For use in California excluding SCAQMD areas, use Topshield® EST (CAL)

- ❖ For use in SCAQMD areas, use Enviro-Grip® EP#2(SC), Topshield® EST(SC), Topshield® ALP-150(SC), Staintuff® 3072(SC)

1.03 TYPICAL USES

- ❖ Renovation or remediation existing surfaces
- ❖ Surfaces that experience wide fluctuations in temperature
- ❖ High traffic areas for the ski industry
- ❖ OSB Plywood
- ❖ All typical pedestrian traffic surfaces over wood substrate

1.04 PRODUCT INSTRUCTIONS

A. For complete information associated with the application of Flexideck® E-ML, refer to the general guidelines section of the PSI catalog which describes the surface preparation, job conditions, finishing details and other necessary information.

B. All products/materials to be used on this system should be purchased from Poly-Tuff Systems International (PSI) or its distributors or approved by PSI. For details on individual product, please refer to Product Technical Data Sheet.

APPLICATION

2.01 Inspection

A. Check area of application to ensure that it conforms to the substrate requirements, as stated in the general guidelines section.

2.02 Repairs

A. Apply a polyurethane caulking or mixed base membrane material over all joints, cracks and flashing. **The E-Tuff® 100 mixed material is a**

mixture of 4 part E-Tuff® 100 and 1 part of water by volume.

B. Bridge the joints, cracks, and flashings with 4" (10 cm) Straight Jacket tape pushing it into the polyurethane caulking or E-Tuff® 100 mixed material with a trowel.

NOTE: Using E-Tuff® 100 mixed material as a caulking compound will shorten the curing time appreciably over conventional polyurethane caulks.

Conventional polyurethane caulks must be allowed to dry and/or out-gas before proceeding with a membrane system.

C. Over reinforcement tape, apply a stripe coat of E-Tuff® 100 mixed material and taper it onto the adjacent surface.

D. Allow the surface to cure for 1 to 2 hours.

2.03 Priming

A. Prime all areas not covered by metal lath with Enviro-Grip® EP#1 or EP#2 at a rate of 1 gallon (mixture of Part-A & Part-B) per 300 sq. ft. (0.14 liters/m²). Apply using a brush or phenolic core roller. This will result in 3 dry mils (76 microns) of coating.

B. Allow Primers to become almost tack free before proceeding to Coating Application. The point at which the primer is generally discerned as nearly tack free is when the primer passes the thumbprint test. The thumbprint test is defined by when a thumbprint is left in the primer and the primer does not transfer onto the thumb. If primer has been allowed to remain tack free for more than 12 hours, it is necessary to solvent wipe the primed area and re-prime.

C. Metal flashings should only be primed with Enviro-Grip® EP#2. All metal flashings should be mechanically abraded with an angle grinder and wire brush cup, followed by a rag with xylene solvent wipe to remove loose particles or oil film.

2.04 Coating Application

A. Mechanically fasten metal lath to deck with 1" crown staples over wood substrates. Ensure lath seams and staples are flush at the surface of the lath.

B. Mix Ratio: Mix 2½ gallons of E-Tuff® 100 to 2 gallons of 20 mesh sand to ½ gallon of water, and ½ vial of catalyst. Add the catalyst to the E-Tuff® 100 and mix prior to adding the sand and water. This mix will produce approximately 4 ½ gallons of Base Membrane.

Apply Flexideck® Base Membrane mixture over metal lath to encapsulate metal lath.

C. The coverage for 100 sq.ft. is approximately 6 gal of E-Tuff® 100 plus sand and water. Spread E-Tuff® 100 mixed base membrane as per 2.04B, evenly over the entire deck resulting in a minimum 95 ± 2 dry mils (2413 ± 50 microns) thick membrane with E-Tuff® 100.

D. When E-Tuff® 100 begins to gel tack-set (when membrane is firm and retains tack and does not allow the aggregate to submerge into the membrane) broadcast 14-30 mesh rubber granules, or clean 16-30 mesh sand aggregates, 6.5+ Moh's minimum until refusal. The amount of aggregate used will vary depending on trowel finish and mesh size.

E When E-Tuff® 100 is firm enough to support the weight of the installer or when coating is dry (approximately 2-3 hours), remove all loose aggregate, preferably by vacuum.

2.05 Top Coat Application

A. Apply desired color of Topshield® EST at a rate of 1¼ gallons/100 sq. ft. (0.51 liters/m²). This coat will result in an additional 13 ± 2 dry mils (330 ± 50 microns) thick coating.

B. At 70°F and 50% relative humidity allow a minimum of 16 and a maximum of 48 hours for topcoat to cure.

C. A finish second topcoat of Topshield® EST should be applied over granulated rubber surfaces, and medium to heavy duty traffic areas at a rate of ¾ gallons/100 sq. ft. (0.31 liters/m²). This coat will result in an additional 8 ± 2 dry mils (203 ± 50 microns) thick coating.

D. OPTIONAL FAST CURE

Topcoat: The addition of Topshield® Accelerator will shorten cure time to 6 to 8 hours for each coat.

E. OPTIONAL TOPCOATS

Topshield® EST may be Substituted with:

- 1) Chem-Sentry® II for chemical resistance
- 2) Topshield® ALP-150 for value engineered projects
- 3) Staintuff® 3072 for fast cure

2.06 FINISHED SYSTEM

A. When applied as directed above, Flexideck® E-ML decking system will provide min.120 ± 5 dry mils (3044 ± 100 dry microns) exclusive of sand

and aggregate, of superior waterproofing protection.

2.07 LIMITATIONS

A. Plywood:

1) Acceptable grades of new plywood are OSB 3/4" or better, ACX/CDX 5/8" or better.

2) The appearance characteristics of the panel grade should be considered for soundness when installing over existing surfaces.

B. PSI Decking Systems will not withstand rising water tables or hydrostatic pressure on slab-on-grade decks.

C. Uncured materials are sensitive to heat and moisture.

D. Proper coating application techniques should ensure a deck with no lines or streaks.

E. The substrate must be structurally sound and sloped for proper drainage.

F. PSI assumes no liability for substrate defects.

2.08 Job Completion

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

B. Field visits by PSI personnel are for the purpose of making technical recommendations only and are not to supervise or provide quality control on the job site.

WARNING: The products in this system contain Isocyanates, Solvent, Epoxy Resin and Curatives.

Please read all information in the general guidelines, product data sheets, system 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.

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.