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## FLEXIDECK® E-WD

*55 Dry Mills Water Curable, Fast Cure  
 Walking Deck Coating System for  
 Plywood, Concrete and Metal Surfaces*

### SYSTEM DESCRIPTION

**1.01 Flexideck® E-WD is a liquid applied, high solids, water catalyzed polyurethane, waterproof Pedestrian Deck System.**

**A.** The system utilizes a primer, one coat of a Water Induced Urethane (WIU)<sup>™</sup> basecoat and two coats of an aliphatic urethane topcoat. Flexideck® E-WD can be applied to protect 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. It will not soften in heat nor become brittle in cold. Flexideck® E-WD is a proven waterproofing system primarily used on plywood, concrete and metal surfaces. Installed and maintained properly, Flexideck® E-WD 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

- ❖ Walkways / Stairs
- ❖ Balconies

- ❖ Over Occupied Space
- ❖ Sun Decks
- ❖ Patios
- ❖ Roof Decks

### 1.04 PRODUCT INSTRUCTIONS

**A.** For complete information associated with the application of Flexideck® E-WD, 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 E-Tuff® 100 mixed material over all joints, cracks and flashing. **E-Tuff® 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 surface 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/m<sup>2</sup>). Apply using a brush or phenolic core roller. This will result in 3 dry mils (76 microns) of coating.

**B.** Allow primer to become 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 the 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.** Primer is optional on new plywood.

**D.** 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.** Apply E-Tuff® 100 mixed material to substrate at a rate of 3 gallons/100 sq. ft. (1.2 liters/m<sup>2</sup>). Application will require more or less material depending on substrate conditions.

**B.** Use a notched trowel or squeegee to spread E-Tuff® 100 mixed material evenly over the entire deck resulting in a min.  $42 \pm 2$  dry mils ( $1066 \pm 50$  microns) thick membrane.

**C.** When E-Tuff® 100 mixed material begins to gel, broadcast 14-30 mesh rubber granules until refusal. The amount of rubber used will vary. (Normal usage is 20 lbs rubber granules/100 sq. ft.)

**D.** When the E-Tuff® 100 mixed material is stiff enough to support the weight of the installer without damaging the coating, 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 1 gallons/100 sq. ft. ( $0.4$  liters/m<sup>2</sup>). This coat will result in an additional  $10 \pm 2$  dry mils ( $254 \pm 50$  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.** Optional second coat: It is recommended to apply a second coat of desired color of Topshield® EST at a rate of  $\frac{3}{4}$  gallons/100 sq. ft. ( $0.31$  liters/m<sup>2</sup>). This coat will result in an additional minimum  $8 \pm 2$  dry mils ( $203 \pm 50$  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, E-Tuff® System E-WD decking system will provide min.  $55 \pm 5$  dry mils ( $1396 \pm 100$  dry microns) with single topcoat and min  $63 \pm 5$  dry mils ( $1600 \pm 100$  dry microns) with additional second topcoat, exclusive of aggregate, of superior waterproofing protection.

## 2.07 LIMITATIONS

### **A.** Concrete:

- 1) 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 unvented metal pan, suspended pool decks, swimming pools, magnesite, gypsum lightweight concrete, asphalt surfaces, asphalt overlays and where chained or studded tires may be used.
- 2) Concrete must exhibit 3000 psi minimum strength. Concrete surfaces to be coated must be trowel finished in compliance with the American Concrete Institute (except that hand troweling is not required), 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.
- 3) New concrete must be cured for 28 days.

- 4) Concrete cleaning (see general guidelines).

### **B.** Plywood:

- 1) The only acceptable grade of plywood is APA rated exterior grade or better.
- 2) The appearance characteristics of the panel grade should be considered.
- 3) Plywood should be new or cleaned and sanded (see general guidelines).

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

**D.** Uncured materials are sensitive to heat and moisture.

**E.** A continuous coating application should ensure a deck with no lines or streaks.

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

**G.** 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.**

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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.