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## FLEXIDECK® P-A

ICC-ES #4789

*Class A Fire Rated System  
 for 3/4" Plywood or Concrete*

### SYSTEM DESCRIPTION

#### 1.01 Flexideck® P-A is a fluid applied water catalyzed water-proof urethane decking system.

**A.** The system is comprised of a primer, two coats of a Water Induced Urethane (WIU)<sup>™</sup> basecoat and two coats of an aliphatic urethane topcoat. Flexideck® P-A can be applied to concrete surfaces to protect spalling, freeze/thaw damage, and chemicals commonly encountered on these surfaces. The elastomeric system is designed to expand and contract with normal structural movements. It will not soften in heat nor become brittle in cold. Flexideck® P-A is an ICC-ES Class A fire rated, waterproofing system primarily used on concrete and plywood and other substrates. Installed and maintained properly, Flexideck® P-A decking system will provide years of reliable service.

#### 1.02 APPROVALS, CODES & TESTING

- A.** Class A Fire Rating on 3/4" or 21/32" Plywood, UBC standard 32-7, ASTM E-108, UL 790, NFPA256  
**B.** Class A Fire Rating on Concrete  
**C.** One-Hour Fire Resistive Construction, UBC Standard No. 7-10, 1997

#### 1.03 FEATURES

- ❖ Seamless
- ❖ Non-Gassing
- ❖ Recoatable
- ❖ Good Weatherability
- ❖ For use in California excluding SCAQMD areas, use Topshield® EST (CAL), EST-FR (CAL)
- ❖ For use in SCAQMD areas, use Enviro-Grip® EP#2(SC), P-Tuff® Classic or Flex, Topshield® EST(SC),
- ❖ Elastomeric
- ❖ Fast-Curing

Topshield® EST(SC)-FR

#### 1.04 TYPICAL USES

- ❖ Walkways / Stairs
- ❖ Over Occupied Space
- ❖ Balconies
- ❖ Patios
- ❖ Sun Decks
- ❖ Roof Decks

#### 1.05 PRODUCT INSTRUCTIONS

**A.** For complete information associated with the application of Flexideck® P-A, 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 P-Tuff® mixed material over all joints, cracks and flashing. **P-Tuff® mixed material is a mixture of 4 part P-Tuff® Classic or Flex 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 P-Tuff® mixed material with a trowel.

NOTE: Using P-Tuff® Classic mixed material as a caulking compound will shorten the curing time appreciably. 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 P-Tuff® Classic 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 flashing 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 First Coating Application

**A.** Apply mixed P-Tuff® Classic 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 mixed P-Tuff® Classic evenly over the entire deck resulting in a min. 42 ± 2 dry mils (1066 ± 50 microns) thick membrane.

**C.** Allow P-Tuff® Classic to cure a minimum of 4 to 8 hours or until firm

enough to support foot traffic without indentation. Actual cure time depends on temperature, humidity, solar gain and temperature of water in mix.

### 2.05 Second Coating Application

**A.** Apply a second coat of water catalyzed P-Tuff® Classic at a rate of 1 gallons/100 sq. ft. (0.41 liters/m<sup>2</sup>).

**B.** Immediately broadcast washed, dry, rounded, crystal silica sand, 16 or 20 mesh (0.0331-0.0469 in.; 0.84-1.19 mm), depending on skid resistance requirements, 6.5+ Moh's minimum hardness at a rate of 100 lbs/100 sq. ft., or to refusal, into the wet second coat, covering it completely.

**C.** This coat will result in a min. 14 ± 2 dry mils (355 ± 50 microns) thick membrane, exclusive of aggregate.

**D.** Allow to cure 2-4 hours. When membrane is ready to accept foot traffic, remove all loose aggregate, preferably by broom and vacuum. Make any touch-up or repairs and let repairs cure before applying top coat.

### 2.06 Top Coat Application

**A.** Apply desired color of Topshield® EST-FR topcoat mixture at a rate of 1¼ gallons/100 sq. ft. (0.51 liters/m<sup>2</sup>). Mixing ratio is 1 part Topshield® EST-FR Part-1 Powder to 5 parts Topshield® EST-FR Part-2 Liquid.

**B.** For best results use a phenolic core roller. This coat will result in an additional 13 ± 2 dry mils (330 ± 50 microns) thick coating. Allow a minimum of 16 hours for topcoat to cure.

**C.** Apply second coat of desired color of Topshield® EST topcoat at a rate of ¾ gallon/100 sq. ft. (0.31 liters/m<sup>2</sup>). This coat will result in an additional 8 ± 2 dry mils (203 ± 50 microns) thick membrane.

**D.** Alternatively, Chem-Sentry® II can be used instead of Topshield®

EST at the rate of ½ gallon/100 sq. ft. This coat will result in an additional 5 ± 2 dry mils (127 ± 50 microns) thick membrane.

**E.** At 70°F, 50% relative humidity, allow 72 hours of cure time before permitting heavy traffic on the finished system. The cure time will be longer in cooler temperature.

### F. OPTIONAL FAST CURE

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

### 2.07 FINISHED SYSTEM

**A.** When applied as directed above, Flexideck® P-A decking system will provide min. 77 ± 5 dry mils (1955 ± 100 dry microns), exclusive of aggregate, of superior waterproofing protection.

### 2.08 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, lightweight gypsum, 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.

### 2.09 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

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