



# FLEXIDECK® P-A

ICC-ES & LA County Class A Fire Rated on 3/4 or 21/32 Inch Plywood and Concrete Decking System

### 1.01 DESCRIPTION

Flexideck® P-A is a seamless, joint-free and crack-free system which consists of a fluid applied, water catalyzed, waterproof urethane Decking System.

The system is comprised of a primer, two coats of a water catalyzed, urethane 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. Be sure to use the right product grade that complies with VOC regulations as per federal, state, statutory bodies, county and city regulations/codes at the place of installation of product.

### 1.02 APPROVALS, CODES & TESTING

- Class A Fire Rating on 3/4" (1.91 cm) or 21/32" (1.67 cm) Plywood, UBC standard 32-7, ASTM E-108, UL 790, NFPA256 (ICC-ESR 2785, LA County RR-25171)
- Class A Fire Rating on Concrete and Plywood
- One-Hour Fire Resistive Construction, UBC Standard No.7-10, 1997

### 1.03 FEATURES

- Seamless
- Non gassing
- Recoatable
- Elastomeric
- Fast curing
- Good weatherability

### 1.04 TYPICAL USES

- Walkways/Stairs
- Balconies
- Sun Deck
- Over Occupied Space
- Patios
- Roof Deck

### 1.05 PRODUCTS & PACKAGING

#### Enviro-Grip™ EP#1

3-gallon kit: One 3.5 gallon pail containing net 2 gallons (7.57 liters) of Side-A blue liquid and 1 gallon (3.78 liters) can of Side-B yellow liquid

15-gallon kit: Two 5 gallon (18.9 liters) pails of Side-A blue liquid, each containing 5 gallons, and one 5 gallon pail of Side-B yellow liquid, containing 5 gallons (18.9 liters)

#### Enviro-Grip™ EP#2

2-quart kit: One quart (0.946 liter) can of Side-A black liquid, and one quart (0.946 liter) can of Side-B white liquid.

2-gallon kit: One gallon (3.78 liter) can of Side-A black liquid, and one gallon (3.78 liter) can of Side-B white liquid

10-gallon kit: one 5 gallon (18.9 liter) pail of Side-A black liquid, and one 5 gallon (18.9 liter) pail of Side-B white liquid

#### P-Tuff® Classic

1 gallon (3.78 liter) can with a partial vial of catalyst  
5 gallon (18.9 liter) pail with a full vial of catalyst

#### Topshield® EST-FR

6-gallon kit: One 6 gallons (22.68 liter) pail containing 1 gallon (3.78 liters) bag of Topshield® EST-FR Side-A powder and one 5 gallons (18.9 liters) pail containing 5 gallons of Topshield® EST-FR Side-B liquid

#### Topshield® EST

1 gallon (3.78 liter) can  
5 gallon (18.9 liter) pail

### 1.06 PRODUCT INSTRUCTIONS

A. For complete information associated with the application of Flexideck® P-A, refer to the General & Safety Guidelines of the Poly-Tuff Systems International (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 PSI or its distributors or approved by PSI. For details on individual product, please refer to Product Data Sheet.

C. For project specific recommendations, please contact PSI.

- D. Refer to products data sheets for products referred in the System Specifications.

## APPLICATION

### 2.01 SURFACE PREPARATION

- A. Check area of application to ensure that it conforms to the substrate requirements, as stated in the general guidelines section. Concrete surfaces require a medium sandpaper finish equal to or greater than an ICRI CSP #3. Surface preparation may be completed by shotblasting or the use of Poly-Tuff Profile and Etch cleaner. Peel and adhesion tests are recommended.
- B. Install a 100-200 sqft (9.30-18.58 sqm) mock up of the system to be installed and approve for aesthetics, color, texture, actual coverage rates and functionality before proceeding.

### 2.02 REPAIRS, CRACKS, JOINTS & FLASHING

- A. Apply a polyurethane caulk or P-Tuff® Classic mixed material over all joints, cracks and flashing. P-Tuff® Classic mixed material is a mixture of 4 parts P-Tuff® Classic 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.

### 2.03 PRIMING

- A. Prime surface with Enviro-Grip™ EP#1 or EP#2 at a rate of 1 gallon/300 sqft (0.14 liters/m<sup>2</sup>) or 300 sqft/gallon. Apply using a brush or phenolic-core roller. This will result in 3-5 dry mils (76-127 microns) of coating. Rough and pin-holed concrete surfaces may require more primer. Discovery of these issues is generally revealed in the mock up. See the Tech-Note Section of the PSI website. Do not allow primer to puddle. Dry roll excess primer with a dry nap roller to pick up excess primer in puddles and overlaps.
- 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 reprime.

- C. Primer is optional on new plywood.
- D. Metal flashings should be primed with Enviro-Grip™ EP#2 after they have been mechanically abraded with an angle grinder, followed by a rag with xylene solvent wipe to remove loose particles or oil film.

### 2.04 BASE COATING APPLICATION

- A. Apply mixed P-Tuff® Classic to substrate at a rate of 3 gallons/100 sqft (1.2 liters/m<sup>2</sup>) or 33 sqft/gallon. P-Tuff® Classic mixed material or water-catalyzed mixed P-Tuff® Classic is a properly homogeneous mixed mixture of four parts of P-Tuff® Classic and one part of water by volume. 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 minimum 36 dry mils (914 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.
- D. Apply a second coat of mixed P-Tuff® Classic at a rate of 1 gallon/100 sqft (0.41 liters/m<sup>2</sup>) or 100 sqft/gallon.
- E. This coat will result in a minimum 12 dry mils (305 microns) thick membrane, exclusive of aggregate.
- F. When broadcasting silica sand, allow membrane to thicken to a firm and sticky surface (approximately 30-45 min) when the sand will adhere but not sink into the base coat. The aggregate should be dry, washed, and rounded silica 12-20, 16-30 or 20-40 mesh size and a 6.5 Mohs scale minimum hardness as required by customer specifications or as specified in the system specifications. Time for thickening to a firm sticky condition is dependent on atmospheric environments especially temperature and humidity. Allow coating to cure 2-4 hours before proceeding to subsequent coats.



# SYSTEM SPECIFICATIONS

## SECTION 2.1.1

- G. When P-Tuff® Classic is stiff enough to support weight without imprinting or denting the coating or when coating is dry (approximately 2-3 hours), remove all loose aggregate by sweeping, vacuum or blowing the excess sand off the deck. Make any touch up or repairs. Allow repairs to cure.

### 2.05 TOPCOAT APPLICATION

- A. Apply desired color of Topshield® EST-FR topcoat mixture at a rate of 1 1/4 gallons/100 sqft (0.51 liters/m<sup>2</sup>) or 80 sqft/gallon. 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 a minimum 13 dry mils (330 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 3/4 gallon/100 sqft (0.31 liters/m<sup>2</sup>) or 133 sqft/gallon. This coat will result in a minimum 8 dry mils (203 microns) thick membrane.
- D. At 70°F (21°C), 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.

### 2.06 FINISHED SYSTEM

- A. When applied as directed above, Flexideck® P-A Decking System will provide a minimum 72 dry mils (1829 ± 125 dry microns), exclusive of aggregate, of superior waterproofing protection. Coverage rates and cure times will vary depending on temperature, relative humidity, surface roughness and porosity, aggregate selection and embedment, and application technique. Coverage rates provided are optimal and are not guaranteed.
- B. Material mil thickness rates are calculated on the theoretical coverage for smooth substrate and do not account for the actual texture or substrate conditions in the field or at the time of application. Sample mock ups on the projects are recommended to determine the exact coverage rates necessary to waterproof the deck and acceptable standards. Imperfections, spalling, scalling, rough surfaces, potholes, slope correction and other irregular textured

surfaces may be filled in with P-Tuff® Classic Sand or Rubber Slurry and are estimated outside the stated minimum coverage rates reflected on Product Data Sheets.

### 2.07 LIMITATIONS

#### A. Concrete:

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 pans, suspended pool, swimming pool decks, without the use of Enviro-Grip™ 404FC primer. In addition, do not use on asphalt surfaces and asphalt overlays without the expressed written consent of PSI. PSI Deck Coating is not recommended over magnesite, gypsum lightweight and where chained or studded tires may be used.

1. Concrete must exhibit 3000 psi minimum strength. An ICRI CSP 3 surface or greater is required for concrete surfaces to be coated.
2. New concrete must be cured for 28 days unless otherwise approved by PSI in writing. New 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. Light broom finished concrete should be power washed before coating application.
3. For concrete cleaning see General & Safety Guidelines.
4. Surface preparation may be completed by shotblasting or the use of Poly-Tuff Profile and Etch cleaner. Peel and adhesion tests are recommended.

#### 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 & Safety Guidelines).

- C. PSI Decking Systems will not withstand rising water tables or hydrostatic pressure on slab-on-grade decks without

the use of Enviro-Grip™ 404FC primer (see Enviro-Grip™ 404FC Product Data Sheet).

- 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.

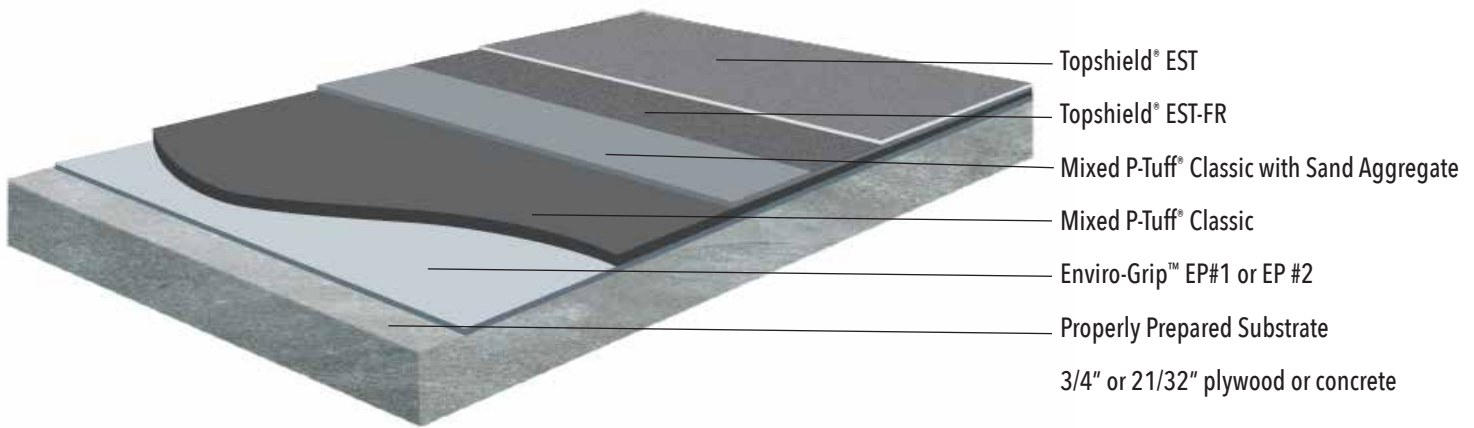
## 2.08 JOB COMPLETION

- A. Equipment should be cleaned with a 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 solvent, isocyanates, epoxy resin, and curatives.**

**COVERAGE RATE CHART**

Primer: Enviro-Grip™ EP#1 or EP #2	Basecoat: mixed P-Tuff® Classic	Topcoat
1gallon/300 sqft (0.14 liters/m <sup>2</sup> )	1st: 3 gallons/100 sqft (1.21 liters/m <sup>2</sup> )	1st: 1 1/4 gallons/100 sqft (0.51 liters/m <sup>2</sup> )
	33 sqft/gallon	80 sqft/gallon
		Topshield® EST-FR
	2nd: 1 gallon/100 sqft (0.41 liters/m <sup>2</sup> )	2nd: 3/4 gallon/100 sqft (0.31 liters/m <sup>2</sup> )
	100 sqft/gallon	133 sqft/gallon OR
		Topshield® EST



Please read all information in the General & Safety Guidelines, Product Data Sheets, Guide Specifications and Safety Data Sheets (SDS) before applying material. PSI Products are for "Professional Use Only" and preferably applied by professionals who have prior experience with the PSI Products or have undergone training in application of PSI Products. Published technical data and instructions are subject to change without notice. Contact your local PSI representative or visit our website for current technical data, instructions, and project specific recommendations.

### 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.