



# POLYCOAT PRODUCTS

A Division of American Polymers Corp.

## POLYDECK® 410

60 Dry Mills, ICC-ES Evaluated,  
Class A Fire Rating on 3/4" or 21/32" Plywood

### SYSTEM DESCRIPTION

The Polydeck® 410 decking system is an urethane, liquid applied, moisture cured waterproof system. The system utilizes an epoxy or urethane primer, two coats of an aromatic urethane basecoat and two coats of an aliphatic urethane topcoat. The Polydeck® 410 decking system 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 embrittle in cold. Polydeck® 410 is a fire rated/waterproofing system for use on a wide range of applications. This system has excellent chemical resistance and color retention. Installed and maintained properly, the decking system will ensure years of service.

### APPROVALS, CODES & TESTING

- ❖ Class A Fire Rating on 3/4" or 21/32" Plywood, UBC Standard 32-7, ASTM E-108, UL 790, NFPA 256
- ❖ ICC-ES Report ER-4789
- ❖ Los Angeles City General Approval Report #RR25171

### FEATURES

- ❖ Seamless
- ❖ Chemical Resistance
- ❖ Recoatable
- ❖ Meets California VOC and AQMD Requirements
- ❖ Elastomeric
- ❖ Waterproof
- ❖ Good Weatherability

### TYPICAL USES

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

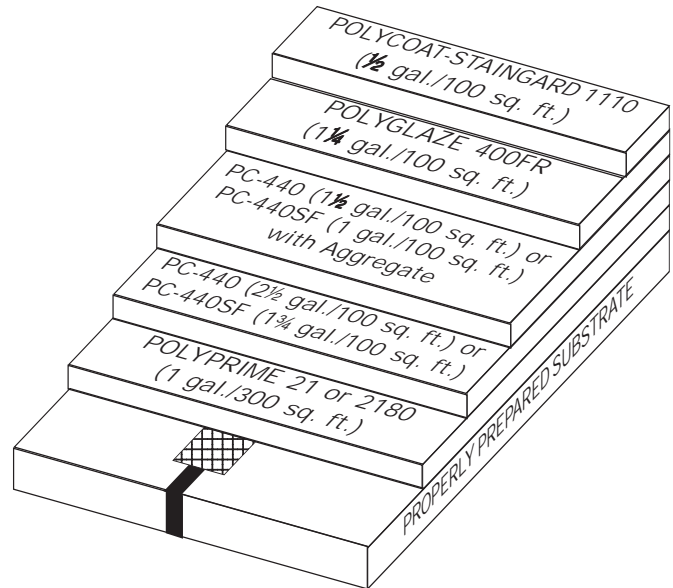
### PRODUCT INSTRUCTIONS

For complete information associated with the application of all Polydeck® decking systems, refer to the general guidelines section of the Polycoat Products catalog which describes the surface preparation, job conditions, finishing details and other necessary information.

### APPLICATION

**Phase 1:** Check area of application to ensure that it conforms to the substrate requirements, as stated in the general information section. Apply a two-part paste consisting of PC-440 or PC-440 SF and PC-50 over all joints, cracks and flashing. Mixing ratio is 1/2 pint of PC-50 to 1 gallon of PC-440/PC-440 SF (0.24 liters per 3.78 liters) or 1 quart PC-50 to 5 gallons of PC-440/PC-440 SF (0.9 liters per 18.9 liters). **Do not mix more material than can be used in 20 minutes.** Bridge the joints, cracks, and flashings with 4" (10.2 cm) Straight Jacket Tape, pushing it into the paste with a trowel. Over Straight Jacket Tape, apply a stripe coat of the PC-440/PC-440 SF and PC-50 mixture and taper it onto the adjacent surface. Allow the surface to cure for 6 to 8 hours.

**Phase 2:** Prime concrete surfaces with Polyprime 21 or 2180 at a rate of 1 gallon (mixture of Part-A & Part-B)/300 sq. ft. (0.14 liters/m<sup>2</sup>). Apply using a brush, airless sprayer or phenolic



core roller. This will result in 3 dry mills (76 microns) of coating. Allow Polyprime to become tack free before proceeding to Phase 3.

Primer is optional on new plywood.

Steel flashings should only be primed with Polyprime 2180.

**Phase 3:** Apply PC-440 to substrate at a rate of 2 1/2 gallons/100 sq. ft. (1.02 liters/m<sup>2</sup>) or PC-440SF at a rate of 1 3/4 gallons/100 sq. ft. (0.71 liters/m<sup>2</sup>). For best results use a notched trowel or squeegee. A phenolic core roller may be used but extra care should be taken to prevent air bubbles. Spread PC-440/PC-440SF evenly over the entire deck resulting in a minimum 27 ± 2 dry mills (686 ± 50 microns) thick membrane. Allow PC-440/PC-440 SF to cure a minimum of 4 to 8 hours.

**Phase 4:** Apply a second coat of PC-440 at a rate of 1 1/2 gallons/100 sq. ft. (0.61 liters/m<sup>2</sup>) or PC-440SF at a rate of 1 gallon/100 sq. ft. (0.41 liters/m<sup>2</sup>). Immediately broadcast washed, dry, rounded sand, 20 mesh (0.0469 in.; 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. This coat will result in an additional minimum 16 ± 2 dry mills (420 ± 50 microns) thick membrane, exclusive of aggregate. Allow to cure a minimum of 16 hours before removing all loose aggregate, preferably by vacuum.

**Phase 5:** Apply desired color of Polyglaze 400 FR topcoat mixture at a rate of 1 1/4 gallons/100 sq. ft. (0.51 liters/m<sup>2</sup>). Mixing ratio is 1 part Polyglaze 400 FR Part-1 Powder to 5 parts Polyglaze 400 FR Part-2 Liquid. For best results use a phenolic core roller. This coat will result in an additional 12 ± 2 dry mills (304 ± 50 microns) thick coating. Allow a minimum of 16 hours for topcoat to cure.

**Phase 6:** Apply desired color of Polycoat-Staingard 1110 topcoat at a rate of ½ gallon/100 sq. ft. (0.20 liters/m<sup>2</sup>). This coat will result in an additional 5 ± 2 dry mils (127 ± 50 microns) thick membrane. At 70°F, 50% relative humidity, allow 72 hours of cure time before permitting heavy traffic on the finished system.

#### **OPTIONAL FASTCURE**

**First Basecoat:** The addition of PC-50 will shorten cure time to 4 to 8 hours for each coat. Recoats should occur 12 hours after cure. PC-50 should not be used in the second basecoat as the sand will not adhere properly.

**Topcoat:** The addition of Polyglaze Hardener will shorten cure time to 6 to 8 hours for each coat. Recoats should occur 8-12 hours of when surface becomes tack-free.

#### **FINISHED SYSTEM**

When applied as directed above, the Polydeck® 410 decking system will provide minimum 63 ± 5 dry mils (1854 ± 100 dry microns), exclusive of aggregate, of superior waterproofing protection.

#### **PACKAGING**

**Polyprime 21:** 3 gallon kits (One 3.5 gallon pail net 2 gallons of Part-A and One 1 gallon can of Part-B) or 15 gallon kits (Two 5 gallon pails of Part-A and One 5 gallon pail of Part-B).

**Polyprime 2180:** 2 gallon kits (One 1 gallon can of Part-A and One 1 gallon can of Part-B) or 10 gallon kits (One 5 gallon pail of Part-A and One 5 gallon pail of Part-B).

**Basecoats:** 1 gallon cans or 5 gallon pails.

**Polyglaze 400FR:** 6 gallon kit (One 6 gallon pail containing 1 gallon bag of Polyglaze 400 FR Part-1 Powder & One 5 gallon pail containing 5 gallons of Polyglaze 400 FR Part-2 Liquid).

**Polycoat-Staingard 1110:** 5 gal kits (One 5 gal pail net 2 gal of Part-A & one 5 gal pail net 3 gal of Part-B) or 1 gal kits (One 1 gal can net 0.44 gal Part-A & one 1 gal can net 0.56 gal Part-B).

#### **LIMITATIONS**

The following conditions must not be coated with Polycoat Products deck coating systems or products: on below grade slabs, split slabs with buried membrane, sandwich slabs with insulation, slabs over unvented metal pan, suspended

pool decks, swimming pools, magnesite, lightweight concrete, asphalt surfaces, asphalt overlays and where chained or studded tires may be used.

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.

New concrete must be cured for 28 days.

Concrete cleaning (see general guidelines).

#### **On Grade**

Polycoat Products Coating Systems should not be subjected to rising water tables or hydrostatic pressure on slab-on-grade decks.

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

The only acceptable grade of plywood is APA rated exterior grade or better.

The appearance characteristics of the panel grade should be considered.

Plywood should be new or cleaned and sanded (see general guidelines).

Uncured materials are sensitive to heat and moisture.

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

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

Polycoat Products assumes no liability for substrate defects.

Field visits by Polycoat Products 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, 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 Polycoat Products representative or visit our website for current technical data and instructions.*

#### **LIMITED WARRANTY**

Polycoat Products warrants its products to be free of manufacturing defects and that they will meet Polycoat Products current published physical properties. Polycoat Products warrants that its products, when properly installed by a state licensed waterproofing contractor according to Polycoat Products guide specifications and product data sheets over a sound, properly prepared substrate, will not allow water migration for a period of one (1) year. Seller's and manufacturer's sole responsibility shall be to replace that portion of the product of this manufacturer which proves to be defective. There are no other warranties by Polycoat Products of any nature whatsoever expressed or implied, including any warranty of merchantability or fitness for a particular purpose in connection with this product. Polycoat Products 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. Polycoat Products 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. Polycoat Products 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 Polycoat Products makes no claim that these tests or any other tests, accurately represent all environments.