



POLYCOAT PRODUCTS

A Division of American Polymers Corp.

POLYDECK® 400 System Data Sheet

POLYDECK® 400

70-96 Dry Mils, ICC-ES Evaluated

Class A Fire Rating on 3/4" / 21/32" Plywood

Pedestrian Traffic Deck

Waterproof Coating System

Primer:

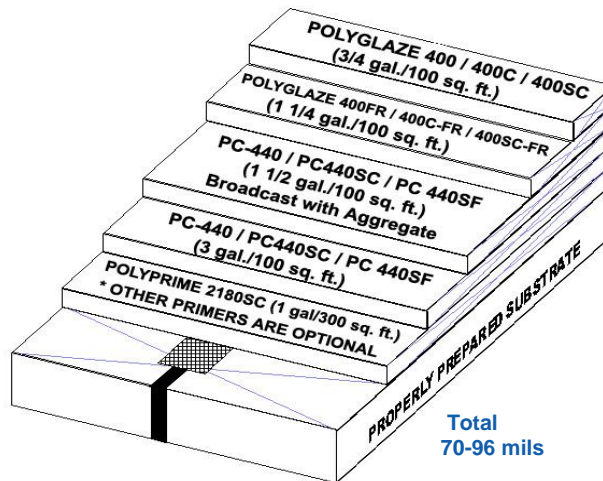
- Polyprime 2180SC
- Polyprime EBF-LV

Basecoat:

- PC-440 / 4440SC / 440SF

Topcoat:

- Polyglaze 400 / 400C / 400SC
- Polyglaze 400FR / 400C-FR / 400SC-FR



System Description:

The Polydeck® 400 decking system has a class A Fire Rating on 3/4" or 21/32" plywood and is a polyurethane, liquid applied, moisture cured waterproof system. The system utilizes an epoxy primer, two coats of an aromatic polyurethane basecoat and two coats of an aliphatic polyurethane topcoat. The Polydeck® 400 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® 400 is a proven fire rated/waterproofing system for use on a wide range of applications. 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 ESR-2785
- Los Angeles City General Approval Report #RR25171
- One-Hour Fire Resistive Construction, UBC Standard No. 7-1

Features:

- Seamless
- Waterproof
- Meets California VOC and AQMD Requirements, when Polyglaze 400C-FR is used in place of Polyglaze 400FR and Polyglaze 400C is used in place of Polyglaze 400.
- Meets Southern California VOC and SCAQMD Requirements, when PC-440SC is used in place of PC-440, Polyglaze 400SC-FR is used in place of Polyglaze 400FR and Polyglaze 400SC is used in place of Polyglaze 400.
- Elastomeric
- Recoatable
- Chemical Resistance

Typical Uses:

- Walkway/Stairs
- Balconies
- Patios
- Over Occupied Spaces
- Roof Decks

Packaging:

Polyprime 2180SC: 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).

PC-440/PC-440SC/PC-440SF: 1 gallon cans or 5 gallon pails.

Polyglaze 400/400C/400SC: 1 gallon cans or 5 gallon pails.

Polyglaze 400FR/400C-FR/400SC-FR: 6 gallon kit (one 6 gallon pail containing 1 gallon bag of Polyglaze 400FR Part-1 Powder and one 5 gallon pail containing 5 gallons of Polyglaze 400FR/400SC-FR Part-2 Liquid).

Primers, Basecoats and Topcoats have a shelf life of 1 year from date of manufacture in original, factory-sealed containers when stored indoors at a temperature between 60-95°F (15-35°C).

Application:

Phase 1: Check area of application to ensure that it conforms to the substrate requirements, as stated in the general information section. Prime all joints, cracks, flashings with approved primers as specified below in Phase 2. Apply a two-part paste consisting of PC-440/PC-440SC/PC-440SF and PC-50 over all joints, cracks and flashing. Mixing ratio is ½ pint of PC-50 to 1 gallon of PC-440/PC-440SC/PC-440SF (0.24 liters per 3.78 liters) or 1 quart PC-50 to 5 gallons of PC-440/PC-440SC/PC-440SF (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-440SC/PC-440SF and PC-50 mixture and taper it onto the adjacent surface. Allow the surface to cure for 6 to 8 hours.

POLYDECK® 400 PEDESTRIAN DECK

Phase 2: Substrates other than new plywood are to be primed. Metal and concrete which have been cleaned should be primed with Polyprime 2180SC at a rate of 1 gallon/300 sq. ft. (0.14 liters/m²). Apply using a brush or phenolic core roller. This will result in a minimum 3 dry mils (76 microns) thick membrane. Note: For rough or porous concrete or when outgassing is a concern, use Polyprime EBF-LV at an approximate rate of 1 gallon/200 sq. ft. (0.21 liters/m²); this rate may vary on the porosity of the substrate. Polyprime EBF-LV meets standards set forth by the South Coast Air Quality Management District (SCAQMD). Allow primer to become tack free before proceeding to Phase 3.

Note: Polycoat basecoats should be applied the same day as the primer to avoid missing the primer recoat window. If this is not possible, broadcast heavy with aggregate into the primer to aid in the adhesion of the basecoat to the primer.

Phase 3: Apply PC-440/PC-440SC/PC-440SF to substrate at a rate of 3 gallons/100 sq. ft. (1.4 liters/m²). 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-440SC/PC-440SF evenly over the entire deck resulting in a minimum 33 – 48 ± 2 dry mils (838 – 1219 ± 51 microns) thick membrane. Allow PC-440/PC-440SC/PC-440SF to cure before proceeding to Phase 4.

Phase 4: Apply a second coat of PC-440/PC-440SC/PC-440SF at a rate of 1 ½ gallons/100 sq. ft. (0.62 liters/m²). Immediately broadcast washed, dry, rounded sand, 20 mesh (0.0331 in.; 0.841 mm), 6.5+ Moh's minimum hardness at a rate of 100 lbs/100 sq. ft. into the wet second coat, covering it completely. This coat will result in an additional minimum 16 - 22 ± 2 dry mils (406 - 559 ± 51 microns) thick membrane, exclusive of aggregate. Allow to cure before removing all loose aggregate.

Phase 5: Apply desired color of Polyglaze 400FR/400C-FR/400SC-FR topcoat mixture at a rate of 1 1/4 gallons/100 sq.ft. (0.51 liters/m²). Mixing ratio is 1 part Polyglaze 400FR/400C-FR/400SC-FR Part-1 Powder to 5 parts 400FR/400C-FR/400SC-FR Part-2 Liquid. For best results use a phenolic core roller. This coat will result in an additional minimum 13 - 16 ± 2 dry mils (330 - 406 ± 51 microns) thick coating. Allow to cure before proceeding to Phase 6.

Phase 6: Apply desired color of Polyglaze 400/400C/400SC topcoat at a rate of 3/4 gallon/100 sq. ft. (0.31 liters/m²). This coat will result in an additional 8 – 10 ± 2 dry mils (203 - 254 ± 51 microns) thick membrane. At 75°F (24°C) and 50% relative humidity, allow 72 hours of cure time before permitting heavy traffic on the finished system.

Optional Fast Cure:

First Basecoat: The addition of PC-50 will shorten cure time to 3-5 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 2-4 hours for each coat. Recoats should occur 8-12 hours of when surface becomes tack-free.

Finished System:

When applied as directed, the Polydeck® 400 decking system will provide 70 - 94 ± 2 dry mils (1778 - 2388 ± 51 dry microns), exclusive of aggregate, of superior waterproofing protection. Requires a continuous coating application to minimize lines and/or streaking. Any optional adhesion test is to be performed seven days after product application.

Limitations:

The following conditions must not be coated with Polycoat Products **deck coating systems or products**: on grade slabs, split slabs with buried membrane, sandwich slabs with insulation, slabs over unvented metal pan, magnesite, lightweight concrete. Asphalt surfaces and asphalt overlays may be coated with Polycoat decking systems if first coated with the Polycoat PC-IM 129.

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). Polycoat Products coating systems should not be subjected to rising water tables or hydrostatic pressure on slab-on-grade decks. The only acceptable grade of plywood is APA rated exterior grade or better. The appearance and physical characteristics of the plywood and grade should be considered. Plywood should be new or cleaned and sanded (see general guidelines). Coating should be applied at least 5°F (3°C) above the dew point.

Coverage rates recommended are based on lab conditions, applied at 75°F (24°C) ambient temperature and are intended to be minimum coverage rates on clean, smooth plywood, and are exclusive of additional amounts needed to fill potholes, spallings, scalling, rough and irregular surfaces. Porosity and roughness of the substrate, aggregate size, and product temperature will affect coverage rates. Material mil thickness rates are calculated on theoretical coverage for a smooth substrate and do not account for the actual texture or substrate conditions in the field or at the time of application. Sample mockups on the projects are recommended to determine the exact coverage rates necessary to waterproof the deck to acceptable standards. Equipment should be cleaned with a urethane grade environmentally safe solvent, as permitted under local regulations, immediately after use. Uncured materials are sensitive to heat and moisture. 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, Solvents, Epoxy Resin and Curatives.

Limited Warranty:

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.

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.

Rev 7/30/14