



PHILAFLOOR PU – 2K

Polyurethane Polyaspartic

Product Information

PhilaFloor PU-2K Polyurethane Polyaspartic primer sealer/finish coatings, pigmented or clear, being self-priming, both decorative and protective, are a new generation of fast-curing, two-component, polyaspartic products for interior or exterior use over properly prepared concrete, metal, mineral substrates, and certain plastics. For application to wood surfaces, contact manufacturer. They have excellent penetration and bond strength to properly prepared surfaces and are UV resistant with flexible properties. They have good splash and chemical-spill-resistant properties involving commercial and household cleaners, pool water treatment products, and hot tires. PhilaFloor PU-2K coatings are ideal for garage floors, patios, walkways, driveways, pool decks, concrete countertops, automotive sales and service areas, restaurant kitchen and dining areas, courtyards, atriums, malls, retail stores, rest rooms, warehousing, animal housing facilities, aircraft hangers, etc.

PhilaFloor PU-2K displays very good compatibility with various well known producers.

Product Features and Benefits

- Self priming, excellent penetrating and bond strength.
- Excellent abrasion, impact, and wear resistance.
- Excellent hot tire pickup resistance.
- UV-resistant; optical clarity of clear sealer/finish.
- Low-temperature cure (-34°C/-30°F); longer cure time needed in low temperatures.
(Note: Reference is related to surface temperature, not ambient temperature.)
- Recoat time, 1 hour; walk-on time, 1 to 2 hours.
- Can add micro media agents to improve slip reduction.
- VOC compliant or HAPS free.
- Meets FDA/CFSAN, U.S. Food Code, Physical Facilities criteria as outlined in 6.101.11
Surface Characteristics USDA acceptable.
- Excellent stain resistance.
- Skydrol resistance.
- Random/incidental heat contract: tolerant to 150°C (300°F).
- Low solvent odor.

Philadelphia Coatings LLC

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Product Data Sheet

Recommended Purpose

- Three-coat garage floor system consisting of self-priming color primer/sealer followed by clear “bed” coat for accepting and wetting decorative flake chips (or other decorative media), followed by clear sealer/finish coat.
- Final clear sealer/finish over decorative concrete surfaces such as acid, color or dye stained, semi-polished concrete, Polymer modified cementitious overlayers, or seamless multi-build epoxy/color quartz flooring.
- High foot traffic, along with certain types of vehicle and material handling equipment.
- UV-resistant sealer/finish coat over safety surfacing systems or outdoor running tracks.

Product is not recommended for the apply over previous coats of water borne or solvent based acrylic coatings or stains.

Physical Properties

Color: Clear

Pigmented: Standard factory or custom colors

Sheen: High or medium gloss and matte finishes

Volume Solids (%): 72 ± 2

Theoretical Coverage: 1155 sq. ft. per Gallon/Mil DFT.

Recommended Film Thickness: 2 to 6 mils per coat

Recoat time: Minimum 1 hour / Maximum 48 hours (contact manufacturer)

Flash Point: Mixed product >38°C (100 °F)

VOC: 1.8 lb/gal (216 g/L) to 0 (zero) (material as into the container)

Application Data

Mixing Ratio: 1.0 part A (Base); 1.0 part B (Catalyst)

Readiness Time: 15 minutes in a proper temperature.

Pot Life: 25 to 30 minutes.

An approximate 25 to 30 minutes workable pot life exists at a temperature range of 21°C to 27°C (70°F to 80°F) (and 50% relative humidity). At higher temperatures and humidity, the pot life can be shorter.

Dry Time: Within 1 to 3 hours minimum.

Thinner: Not recommended. The material is ready for use, under special conditions use thinner PH 200, max 5% by volume.

Painting Method: Roller application is recommended. The roller must have an industrial-grade, phenolic-resin core with a synthetic-nap or lambs-wool cover, 1/8 to 3/8 inch nap, 18 inch width. Additional thinner maybe required. Use proper equipment. Actual safety measures and precautions are very important from the selected method and environment work. Emergency Contact Numbers are available World Wide upon any request.

Cleaning: Power tool cleaning and Cleaners with Thinner PH 400. Do not use alcohols.

Coating Specification

If local temperatures are around freezing, overcoat period may be long. Please consult with Philadelphia Coatings LLC Technical Department.

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Surface Preparation

Before application the receiving surface must be deemed structurally and mechanically sound, clean, and dry. Proper surface preparation is required for decorative-concrete, thin-film "Class-A-type" flooring systems or sealer/finish coatings. This is best achieved with mechanical grinding machines using diamond heads achieving a final 50 to 120-grit profile. Recommended surface profile is SP-2, Reference ICRI Technical Guideline No. 03732.

All receiving surfaces to be coated must be free of previous coatings, sealers, curing compounds, water repellents, laitance, efflorescence, oils, fats, grease, waxes, residues from cleaning compounds, nonvisible soluble salts, and any other impediments to adhesion. The resulting surface must be a neutral pH 7.

Always check for potential bond breakers. One method is simply wiping the surface of the prepared concrete with a dark cloth. If white powder is present it should be removed. Another method entails pouring a slight amount of water on the concrete in random areas. If the water is absorbed into the concrete and leave it wet, the substrate is porous and thus acceptable. If water beads up, this indicates a bond breaker is still present and further surface preparation steps are necessary, such as additional mechanical grinding.

The rising moisture vapor emission rate must not exceed 3 pounds per 1,000 sq ft. (3 lb/1,000 ft) over a 24-hour period as measured by the calcium chloride test method, ASTM F-1869. The relative humidity in the slab must not exceed 80 percent.

Any repairs that are not associated with normal cleaning and surface preparation work (i.e., cracks, chips, pitted/severe spalls deemed non-structurally sound or have levelness issues) must be properly addressed and remedied prior to application of the coatings due to the fact that coatings follow the contours of the existing substrate. All spalls and cracks should be repaired in accordance with ICRI standards.

Optimum performance, including adhesion, corrosion protection, heat resistance and chemical resistance is achieved with recommended surface preparation. For other surface treatments, please consult with Philadelphia Coatings LLC.

Mixing

Mix part A and part B in equal parts (1:1) using a clean, dry working vessel. Stir gently, avoid over-mixing or creating a vortex that would introduce moisture. Do not mix below the dew point, which will shorten the pot life. No induction time is required prior to use. If micro-media agents are to be incorporated, they are to be added after thoroughly mixing A and B.

Storage

Circa 12 months unopened at 5°C to 38°C (40°F to 100°F) in a covered area (out of the sun). The product must be stored in tightly sealed containers in a climate-controlled, dry location at normal room temperature. Containers which have been opened for use must be re-sealed immediately in a new container, preferably filled to the top (the more airspace in the container the greater the potential for reaction with moist air, decreasing the shelf life of the product).

In some markets commercial shelf life can be dictated shorter by local legislation. The above is minimum shelf life, thereafter the paint quality is subject to re-inspection.

Color Variation

When applicable, products primarily intended for use as primers or antifoulings may have slight color variations from batch to batch. Such products may fade and chalk when exposed to sunlight and weathering. Color and gloss retention on topcoats/finish coats may vary depending on type of color, exposure environment such as temperature, UV intensity etc., and application quality. For further information, please consult with Philadelphia Coatings LLC.

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Pack Size

Basis 1 Gal. (3,785 Lit) pail, agent 1 Gal. (3,785 Lit) pail.

Basis 5 Gal. (18,9 Lit) pail, agent 5 Gal. (18,9 Lit) pail.

If other packing specifications are needed, please consult with Philadelphia Coatings LLC.

Health and Safety

Prior to use, obtain, consult and follow the Material Safety Data Sheet for this product concerning health and safety information. Read carefully and conform to precautions on MSDS and packing vessels. To avoid eye and skin contact, tools such as gloves, goggles and face mask etc. should be used during work with product (proper safety measures should be taken according to construction methods and circumstances). All work with the product must be carried out according to all relevant national health, safety and environment standards and codes. This product is for professional use only.

Limitation of liability

All information is given for guidance only and is subject to regional variation depending upon local climate and environmental condition. An excessive film thickness delays the final curing and creates sagging. Over coating interval will increase with the number of paint layers and the thickness of the paint film. For recommended paints at special circumstances, please consult with our Philadelphia Coatings LLC. Apply in good weather. The relative humidity must not exceed 80% temperature of the surface to be coated must be at least 3°C above the dew point. All data from the tests is obtained under lab conditions, so Philadelphia Coatings LLC won't bear any liabilities from the condition whether the data could reflect the objective status of the actual application circumstance or not.

Disclaimer

The information in the product manual is based on our experiences from tests and practice. For the application without our knowledge, we could only make sure that our products themselves are warranted. We may modify the data in this product manual according to our continuous development and experience accumulation without advanced notice.