



EUCOFLOOR EPOXY PRIMER

SAND BROADCAST EPOXY BONDING SYSTEM FOR CEMENTITIOUS UNDERLAYMENTS AND TOPPINGS

PACKAGING

3 gal (11.4 L) unit (contractor kit)
Code: 003LCK 13

CLEAN UP

Clean tools and application equipment immediately with acetone, xylene, or MEK. Clean spills or drips with the same solvents while still wet. Hardened EUCOFLOOR EPOXY PRIMER will require mechanical abrasion for removal.

SHELF LIFE

2 years in original, unopened package

DESCRIPTION

EUCOFLOOR EPOXY PRIMER is a three component, high-performance bonding system, consisting of: a two component, medium viscosity epoxy (sold by Euclid Chemical) and an oven-dried, coarse silica sand (sold separately- locally sourced by end-user). The medium viscosity epoxy is mixed and applied to the prepared concrete substrate, and is then immediately broadcast/"seeded" to refusal with the oven-dried coarse silica sand. This creates an aggressive surface profile that provides unsurpassed mechanical bonding for the subsequent cementitious topping.

PRODUCT CHARACTERISTICS

FEATURES/BENEFITS

- Sand broadcast system provides unsurpassed adhesion for toppings and underlayments to concrete substrates
- Epoxy formula is an easy to use 2:1 mix ratio
- Medium viscosity epoxy ensures proper thickness to facilitate sand broadcast

PRIMARY APPLICATIONS

- Bonding system for cementitious underlayments and toppings to existing, hardened concrete

APPEARANCE

Part A liquid is colorless and Part B liquid is amber in color.

COVERAGE

The coverage rate is approximately 90 to 120 ft²/gal (2.2 to 2.9 m²/L) to provide a uniform wet film thickness of 16 to 20 mils (0.40 to 0.50 mm). At this rate one 3 gallon (11.4 L) unit will cover 270 to 360 ft² (25 to 33 m²).

Note: Coverage rates are approximate. Actual coverage depends on temperature, texture, and substrate porosity.

TECHNICAL INFORMATION

The following are typical values obtained under laboratory conditions. Expect reasonable variation under field conditions.

Test Method	Test Property	Result
-	Gel Time (200 g mass)	22 minutes
-	Pot Life	20 minutes
-	Open Time (20 mil (0.50 mm) film)	1 hour 45 minutes
ASTM D5895	Approximate Drying Time (20 mil (0.50 mm) film)	Tack Free: 2 hours Thin Film Set (sand seeded): 3.25 hours
-	Viscosity, cp	Part A: 4,790 Part B: 450 Mixed: 1,345
ASTM D638	Tensile Strength psi (MPa)	7 days: 7,780 (53.6)
ASTM D638	Elongation at Break	7 days: 2%
ASTM D638	Tensile Modulus psi (MPa)	7 days: 385,000 (2,654)
ASTM D695	Compressive Strength psi (MPa)	7 days (3:1 mix with 20/40 sand): 10,300 (71.0)
ASTM D695	Compressive Modulus psi (MPa)	7 days: 220,000 (1,517)
ASTM C882	Bond Strength (Sand Saturated), psi (MPa)	2 days: 2,400 (16.5) 14 days: 2,700 (18.6)
ASTM D570	Water Absorption	7 days: 0.37%
-	VOC Content	≤5 g/L

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DIRECTIONS FOR USE

Surface Preparation: The surface must be structurally sound, dry, clean and free of grease, oil, curing compounds, soil, dust and other contaminants. Surface laitance must be removed. Concrete surfaces must be roughened and made absorptive, preferably by mechanical means, to a CSP of 2-3 in accordance with ICRI Guideline 310.2. After mechanical preparation, thoroughly remove all dust and debris. If the surface was prepared by chemical means (acid etching), a water/baking soda or water/ammonia mixture, followed by a clean water rinse, must be used to neutralize the substrate. Allow substrate to dry before application. Route cracks and blow dust/debris from them with oil-free compressed air. Following surface preparation, the strength of the surface can be tested if quantitative results are required by project specifications. An elcometer or similar tensile pull tester may be used in accordance with ASTM C1583, and the tensile pull-off strength should be at least 250 psi (1.7 MPa). Do not apply epoxy or urethane coatings if there is excessive moisture in the concrete, or if the moisture vapor emission rate (MVER) is high. Before application of EUCOFLOOR EPOXY PRIMER, perform either of these tests: ASTM F2170 - Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using In-Situ Probes, or ASTM F1869 - Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride. If the relative humidity is 85% or greater, or the MVER is 3 lbs/1000 ft²/24 hrs or greater, use a moisture mitigation system such as Dural Aquatight WB or Dural Aquatight 100.

Mixing: With a low-speed drill, pre-mix Part A and Part B separately for approximately 1 minute each. After pre-mixing, pour Part B into Part A and mix thoroughly for 3 to 5 minutes until the mixture is homogeneous.

Scrape the bottom and sides of the containers at least once during mixing. Do not scrape bottom or sides of the container once mixing operations have ceased; doing so may result in unmixed resin or hardener being applied to the substrate. Unmixed resin or hardener will not cure properly. Do not mix at high speeds or aerate the material during mixing. To keep aeration to a minimum, the recommended mixing paddles are #P1 or #P2 as found in ICRI Guideline 320.5R-2014.

Application: Immediately empty the entire contents of the mixed EUCOFLOOR EPOXY PRIMER onto a properly prepared substrate, spreading it carefully in order to achieve a uniform wet film thickness of 16 to 20 mils (0.40 to 0.50 mm). EUCOFLOOR EPOXY PRIMER will build excessive heat if left to react in the mixing pail.

Spread eucofloor epoxy primer over the substrate with a 1/8 inch (3 mm) squeegee and back-roll with a roller equipped with a 1/4 inch (6 mm) nap roller cover. Use a quality paintbrush for edges, corners, and hard-to-reach areas. Make sure that all voids and pinholes are filled/sealed to eliminate substrate outgassing. In some cases on rough surfaces, a longer-nap roller may be required to ensure complete surface coverage.

Immediately after spreading EUCOFLOOR EPOXY PRIMER, broadcast 16-30 mesh dry aggregate over the surface of the wet epoxy at a rate of approximately 1 lb per ft² (4.88 kg per m²), until there are no wet spots. Follow NIOSH safety guidelines when broadcasting aggregate.

At 75 °F (24 °C), allow aggregate-seeded EUCOFLOOR EPOXY PRIMER to cure for 4-6 hours before removing excess aggregate, by sweeping and vacuum. Allow more time if temperatures are below 75 °F (24 °C). Less time is required if temperatures are above 75 °F (24 °C).

If after removing excess aggregate, areas of glossy, cured epoxy are observed, reapplication of EUCOFLOOR EPOXY PRIMER and rebroadcast of the aggregate is required. Glossy, cured areas of un-seeded epoxy will act as a bond breaker with the subsequent installation of underlayment or topping products. Before reapplication, ensure that all dust from aggregate and any other surface contamination is removed. Reapplication must be made within 24 hours of the original application of the EUCOFLOOR EPOXY PRIMER and aggregate broadcast.

PRECAUTIONS/LIMITATIONS

- Store EUCOFLOOR EPOXY PRIMER indoors, protected from moisture, at temperatures between 50 and 90 °F (10 and 32 °C). Condition material to 70 °F (21 °C) for at least 24 hours before using
- Surface and ambient temperature during applications should be between 50 and 90 °F (10 and 32 °C)
- Working time and cure time will decrease as the temperature increases, and will increase as the temperature decreases
- In all cases, consult the product Safety Data Sheet before use

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