

K A U F M A N

PRODUCT
INFORMATION

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SurePoxy HM EPL

Description

SurePoxy HM EPL is a unique, three-component, extended pot life, moisture insensitive mixture combining the benefits of a 100% solids epoxy resin system and specially graded aggregates and cement. This perfect blend produces a structural adhesive/coating that has an extended tack free time of fifteen hours. The longer open time allows the end-user significantly more time to construct forms around the area, prior to placement of concrete or repair mortars. SurePoxy HM EPL may be used neat as a bonding agent or mixed with component C to produce a thick protective coating and bonding agent on rebar that prevents corrosion. Unlike water-dispersed epoxy coating systems that do not form a vapor barrier, and thus allow for the potential of corrosion, SurePoxy HM EPL is 100% solids and does form a vapor barrier. As a result, SurePoxy HMEPL offers the ultimate in corrosion protection, while also offering a longer open time to make it easier for the contractor to use the product correctly.

Uses

SurePoxy HM EPL is especially recommended for bonding fresh concrete overlays, toppings, patches, and shotcrete to existing substrates. The long open time allows SurePoxy HM EPL to be applied up to fifteen hours before topping an existing substrate. This gives workmen plenty of time after applying SurePoxy HM EPL, to place the reinforcement or forms before pouring the concrete. It is excellent for one-sided forming. In these instances, the third component is not suggested.

SurePoxy HM EPL is also excellent as an anti-corrosion coating to protect reinforcing steel because it forms a vapor barrier, unlike water-dispersed epoxy protective coatings.

Features

- 100% Solids System
- Does Not Contain Water
- Corrosion Resistance
- Extended Tack Free Time
- Cures at About the Same Rate as Concrete
- Self-Contained, Factory-Proportioned Units
- Free of Organic Solvents
- VOC Compliant
- May be applied between 60-95°F
- Clean Up with Water

Physical Properties @ 72°F and 50% relative humidity.

Uncured

Color-Neat	Clear
Color W/ Component C	Concrete Tan
Initial Viscosity, neat	5,000 cps
W/aggregate	15,000 cps.
Shelf life	1 year minimum
Gel Time, 200 grams neat	4 hours
Tack-Free Time	up to 15 hrs. @ 72°F
Final Cure	28 days

Cured, 28 days unless otherwise noted

HDT	121°F
(ASTM D-648)	
Slant Shear Bond Strength	2,800 psi. @ 7 Days
(ASTM C-882)	
Shore D Hardness	75
Compressive Yield Strength	6,000 psi.
@ 7 days	
(ASTM D-695)	8,500 psi @ 28 days
Compressive Modulus	350,000 psi.
(ASTM D-695)	
Tensile Strength	7,000 psi.
(ASTM D-638 at 28 Days)	
Tensile Elongation	5%
(ASTM D-638)	
Water Absorption, 24 hrs.	.20
(ASTM D-570)	
Shrinkage	.002
(ASTM D-2566)	

All values approximate - will vary with temperature and humidity. Stated test values take into consideration the extended open time of SurePoxy HM EPL, regarding the testing protocols of ASTM C-881 specific to elapsed time between casting of lab samples and physical testing.

Specifications

ASTM C-881, Types I, II, & V, Grade 2, Class C
AASHTO M-235, Types I, II, & V, Grade 2, Class C

(Above compliances modified due to the significantly longer tack free time of SurePoxy HM EPL.)

Packaging Yield

This product is used as either a 2 or 3-component mix. For all uses it consists of a carton containing a 1- gallon component of A and a 1- gallon component of B. Optionally, add 1 bag of Part C containing 37# of an aggregate blend.

Each complete 2 gallon unit with Component C added will yield approximately 3.85 gal. (889 in³) of material. When applied at 80 ft²/gal., one unit will cover 308 ft². If applied at 160 ft²/gal., one unit will cover 616 ft².

Directions

Surface Preparation

Concrete -Surface must be clean and sound. It may be dry or damp but free of standing water. Remove laitance, and all foreign matter as per ASTM D-4258 and D-4259.

Water-blasting followed by shotblasting is the preferred method of preparation, to provide a fractured aggregate profile of at least 1/8" equal to texture #4-#5 from ICRI. Also satisfactory are sandblasting or shotblasting individually. Acid etching according to ASTM D-4260 15-20% muriatic acid solution can be used as an alternative. Wash acid and loose mortar off with high-pressure water until slush is removed. Test with litmus paper to be sure acid is removed. Final rinse with 1% ammonia solution is beneficial for final rinsing after acid.

Steel – Follow SSPC SP 11 Power tool cleaning to bare metal for best results. Remove of visible oil, grease, dirt, dust, rust, coatings, oxides, mill scale, corrosion products, and other foreign matter when viewed without magnification. Some rust remaining at the bottom of the pits is acceptable provided the surface was pitted to start with. A surface profile of no less than one mill between peaks and valleys is required. Grinding tools and impact tools are both acceptable means for achieving the desired level of cleaning specified. All oil, dust, and grease must be removed both before and after the cleaning procedure.

Expansion/control joints, joint sealants, floor drains and floor termination joints require special attention. SurePoxy HM EPL will not usually adhere to sealant joint products. Test first.

Proportioning/Mixing

Remove all ingredients from pails. Stir each gallon can well and empty contents into 5 gal. pail. Mix the two gallons in the pail with low speed (400-600 rpm) drill until uniform. Pour one bag of Component C into the pail containing the two gallons of epoxy and mix again for two minutes if using the SurePoxy HM EPL as an anti-corrosion coating. Keep material well stirred until used.

Application

Bonding Fresh Concrete to Hardened Concrete:

Apply SurePoxy HM EPL to hardened concrete at 80 ft²/gl. (20 mils) with a stiff brush, broom, squeegee promptly after mixing. Apply fresh concrete up to 15 hours after application of SurePoxy HM EPL when applied at 70°F. If SurePoxy HM EPL loses its gloss due to suction into the substrate or if used in high temperatures, apply additional coat, while first coat is still tacky.

For Corrosion Protection of Steel:

Apply by stiff bristled brush or airless spray at approximately 160 ft²/gl. (10 mils). Be sure to coat the exposed steel completely. Allow coating to dry 2-3 hours at 75°F, and then apply a second coat at the same coverage rate. Allow the system to dry again for 2-3 hours, before the repair mortar or concrete is placed.

Precautions

Do not thin SurePoxy HM EPL. Pot life will vary substantially due to different temperatures. The contractor shall use the test method prescribed in ACI 503R to determine that the preparation produced a surface capable of providing tensile bond strength greater than 250 psi. SurePoxy HM EPL is a vapor barrier after cure. Store this product above 45°F. *Read Safety Data Sheet before using.* Please refer to the *General Epoxy Instructions* for complete details on proper application during cold and hot weather.

Technical Information

Test results were achieved under laboratory conditions. Statistical variations will occur based upon mixing methods, temperature & humidity, test methodology, site conditions, curing conditions, application methods, and equipment.

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