K A U F M A N

SurePoxy HMLV

Description
SurePoxy HMLV is a 100% solids, two component, moisture-insensitive, epoxy resin system. This is a low viscosity multi-purpose product that can be applied neat or filled with aggregate, and may be used with concrete, metals such as steel, wood, and other substrates. It does not contain fillers or non-reactive diluents. SurePoxy HMLV comes complete in one package, containing both components, so there is less chance of a mixing error.

Uses
SurePoxy HMLV is recommended for base plates and bolt grouting and for use as a low viscosity, penetrating sealer. SurePoxy HMLV is ideal for pressure injection high modulus grouting. When mixed with SurePoxy Aggregate, it provides an excellent setting bed for precast concrete, marble and granite.

Specifications
ASTM C-881, Types I, II, IV & V, Grade 1, Class C
AASHTO M-235, Types I, II, IV & V, Grade 1, Class C

VOC
0 grams/Liter

Packaging
16.5 oz. cartridge
3 gallon unit
15 gallon unit

Storage Conditions
Store dry at 40-95°F. Condition material to 65-85°F before using.

Directions
Surface Preparation
Concrete - Surface must be clean and sound. It may be dry or damp but free of standing water. Remove oil, wax, curing compound, laitance, and other foreign matter as per ASTM D-4258 and D-4259. Waterblasting followed by shotblasting is the preferred method of preparation to provide a fractured aggregate profile. Also satisfactory are sandblasting or shotblasting individually. Acid etching according to ASTM D-4260 with Kaufman Products Concrete Floor Etch or 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. Steel - Sandblast to appropriate finish.

Proportioning/Mixing
The volumetric ratio of SurePoxy HMLV is 2:1 (A:B). To mix, proportion 2 parts A and 1 part B into a clean pail. Mix thoroughly for 3 minutes with paddle on low speed (400-600 rpm) drill until blend is a uniform color. Add approximately 7 parts by volume of SurePoxy Mortar Aggregate or K Pro HP Grout Aggregate to 1 part neat SurePoxy HMLV to produce a mortar. Mix thoroughly.

Typical Properties @ 75°F and 50% RH

Uncured

Mixing Ratio	2:1 by volume
Color:	A-Clear; B-Dark Amber Mixed-Dark Amber
Initial Viscosity (ASTM D-2556)	400-450 cps.
Shelf Life:	2-years minimum
Pot life, neat 1 pt.	35-45 min.
Final Cure	7 days

Cured

HDT (ASTM D-648)	130°F
Bond Strength (ASTM C-882)	
Hardened Concrete to Hardened Concrete	
2 Days (Moist Cure)	1,500 psi.
14 Days (Moist Cure)	2,400 psi.
Freshly Mixed Concrete to Hardened Concrete	
14 Days (Air Cured)	2,300 psi.
Compressive Strength 5:1 mortar (ASTM C-579)	7,000 psi. @ 1 day 10,000 psi. @ 3 days 11,000 psi. @ 7 days
Compressive Strength (ASTM D-695)	10,500 psi. @ 7 days
Compressive Modulus (ASTM D-695)	444,700 psi @ 7 days
Tensile Strength & Elongation (ASTM D-638)	7,500 psi.@ 7 days 4-6%
Tensile Strength (ASTM C-307)	2,600 psi.
Flexural Strength (ASTM D-790)	15,000 psi. min. @ 7 days
Shrinkage (ASTM C-883)	.002%
Linear Coefficient of Shrinkage (ASTM D-2566)	0.004 in/in
Water Absorption (ASTM D-570)	.07% @ 24 hours

All values approximate—will vary with temperature and humidity.

Application

Grout Cracks - Gravity feed SurePoxy HMLV into horizontal cracks, pressure feed into vertical or overhead cracks. Be sure and insert ports into crack first. Then seal around ports and along crack with proper gel.

Anchor Bolts, Rods, etc. - Use neat or with either SurePoxy Mortar Aggregate or K Pro HP Grout Aggregate, added at the rate of 5-7 parts to 1 part of SurePoxy HMLV by volume. If used neat, hole size should be 1/8" larger diameter than imbedded item.

Mortar/Grout - Mix with approximately 5-7 parts aggregate for a stiff consistency. Use 2-4 parts aggregate for a more flowable application.

Seal Slabs - Spread neat SurePoxy HMLV over surface of slab with flat rubber squeegee or roller. Allow to penetrate, squeegee off excess before it hardens.

Precautions

Do not thin SurePoxy HMLV. The contractor shall use the test method prescribed ACI 503R to determine that the preparation produced a surface capable of providing tensile bond strength greater than 250 psi. If stored below 45°F, some settling and lumping appear. *Read Safety Data Sheet before using*. Please refer to the *General Epoxy Instructions* for complete details on proper application during cold and hot weather. Please refer to *Recommended Field Procedures for Epoxy Injection Using Cartridges* when necessary.

The NTSB has stated that epoxy adhesive products are approved for short term loads only and should not be used in sustained tensile load adhesive anchoring applications where adhesive failure could result in a public safety risk. Consult a design professional prior to use.

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.