KAUFMAN

PRODUCT
INFORMATION

KAUFMAN PRODUCTS INC. 3811 CURTIS AVENUE BALTIMORE, MARYLAND 21226-1131 410-354-8600 800-637-6372
www.kaufmanproducts.net

SurePoxy VLM Class B

Description
SurePoxy VLM-Class B is a two component, 100% solids, moisture-insensitive, epoxy resin based Class B system. It contains a flexible additive co-polymerized with the epoxy ingredients for added durability. It is a very low modulus, waterproof binder that can tolerate greater variation in temperature and stress after curing. SurePoxy VLM-Class B is designed for application on damp or dry surfaces, free of standing water, at temperatures as low as 40℉. It may be used neat or with aggregate to formulate a mortar or overlay system.

VLM-Class B is capable of withstanding thermal and mechanical movements. It is resistant to abrasion, ice, gasoline, chemicals and oils. It is designed to provide very rapid cures in thin films, permitting areas to be opened to traffic within three hours at 77℉.

Uses
SurePoxy VLM-Class B is especially recommended as a stress-relieved binder in abrasion and chemical resistant mortars on concrete or steel. It is also useful as a multi-layered aggregate seeded polymer overlay system for concrete bridges, parking decks and roadways. It seals pores and cracks from chloride penetration and helps prevent corrosion of rebar. When seeded, it is skid resistant. Because it is quick setting, roads can be opened to traffic sooner.

Specifications
ASTM C-881, Type III, Grade 2, Class B
AASHTO M-235, Type III, Grade 2, Class B
USDA OK

Packaging
2 gallon unit
10 gallon unit
100 gallon unit

VOC
0 grams/liter

Typical Properties

Uncured	75℉	50℉
Mixing Ratio	1:1 by volume	1:1 by volume
Color	A-straw; B-amber; Mixed-amber	A-straw; B-amber; Mixed-amber
Viscosity	800-1000 cps.	2000-2500 cps.
Shelf Life	2 year min.	2 year min.
Pot life, neat 1 lb.	15-20 min.	30-35 min.
Tack-free (thin film)	90 min.	4 hours
Final Cure	3 days	3 days

Fully Cured	
HDT (ASTM D-648)	50℃
Bond Strength, 14 days (ASTM C-882)	1,830 psi. min.
Compressive Strength	7,000 psi. min.
(6:1 mortar ASTM D-695)	7,500 psi. min.
Compressive Yield Strength	6,000 psi. min.
Comp. modulus	110,000 psi.
Tensile Strength & elongation	2,800 psi. min. 30-100%
Thermal compatibility	passes
Effective shrinkage	passes

All values approximate-will vary with temperature and humidity.

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. Water blasting followed by shot blasting is the preferred method of preparation. 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. Use tests methods prescribed in ACL 503R to determine if the surface has been properly prepared. Be sure to rinse thoroughly with clear water to remove all residues.

The surface shall uniformly be roughened to a degree similar in appearance to coarse sandpaper - aggregate may show. Steel Sandblast to appropriate finish.

Proportioning/Mixing

The volumetric ratio of VLM-Class B is 1:1 (A: B). To mix, proportion 1 part A and 1 part B into a clean pail. Mix thoroughly with paddle on low speed (400-600 rpm) drill until blend is uniform in color. During cool weather when temperatures are below 70°F., either condition both components to 75°F before using or after combining components, allow the mixed material to sit until it is 80°F before applying.

Application

Skid resistant overlay system - Apply first coat to properly prepare surfaces at coverage rate below using a squeegee. Immediately follow with a light roller pass to eliminate puddles and achieve a uniform film. Apply gap graded, dry aggregate, meeting below specification before SurePoxy VLM-Class B has become tacky. Aggregate can be silica, emery or other types.

Sieve Size	% Passing by Weight
4	100
8	30-75
16	0-1

Following initial cure, approximately 1-2 hours at specified rate, apply second coat of neat SurePoxy VLM-Class B at coverage rate below. Reapply aggregate again in similar manner. When sufficiently hard, open to traffic (typically after 2 inch cubes reach 1000 psi).

Patch and overlay mortar - Prime substrate with neat SurePoxy VLM-Class B using brush, roller, or Squeegee. Prepare mortar by adding approximately 4-7 parts SurePoxy Mortar Aggregate to 1 part VLM-Class B by volume. SurePoxy VLM-Class B mortar must be placed while prime coat is still tacky. Trowel into patches, creed or trowel over large areas. Finish with steel trowel. To obtain an easy to clean finish, apply neat sealer coat of SurePoxy VLM-Class B when overlay has cured.

Coverage/Yield

Mortar

One gallon of SurePoxy VLM-Class B, mixed with 5 gallons SurePoxy Aggregate yields approximately .5 ft^3 of epoxy mortar.

Overlay

Per 100 ft^2	VLM Class B Gal.	Special Aggregate *Lb.*
First Coat	2.5	111
Second Coat	5.0	154
Total	7.5	265

Precautions

Do not thin, store at 40-90°F. 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. Pot life varies due to different temperatures. Do not apply mortar over existing expansion joints or moving cracks and/or construction joints. Apply subsequent coats of epoxy within 4 hours of previous coat. If air compressor is used, the air shall be moisture and oil free. *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.