

K A U F M A N

PRODUCT
INFORMATION

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SurePoxy 117

Description

SurePoxy 117 is a 100%-solids, high-modulus, two-component, fast-setting epoxy gel. SurePoxy 117 provides a rigid, non-shrinking adhesive for use in both dry and damp applications. It is insensitive to moisture before, during, and after cure. SurePoxy 117's unique non-abrasive formula makes application significantly easier with pressure injection equipment. SurePoxy 117 is intended for application from 60-95°F. Temperature variations during cure will effect the strength gain time.

Uses

SurePoxy 117 is ideally suited as a chemical anchor when adding new lanes to highways, or additional runways at airports. SurePoxy 117 is chemically engineered expressly for use with automated injection equipment. Follow pressure equipment manufacturers directions. Use to adhere parking bumpers and sealing cracks and ports for injection of epoxy into concrete.

Specifications

ASTM C-881, Types I, II, IV & V, Grade 3, Classes C (modified for faster set)
ODOT Supplemental Specification #803 and 952.
AASHTO M-235, Types I, II, IV & V, Grade 3, Classes C (modified for faster set)

VOC

0 grams/liter

Packaging

600 Milliliter (22 oz.) 6 per carton
3.785 Liter (1 gal. unit)
5.68 Liter (1.5 gal. unit)
7.5L (2 gal. unit)
37.85L (10 gal. unit)
416.35 Liter (110 gal. unit)

Temperature Conditions

Store at 40-95°F. Condition material to 60-85°F before using.

Physical Properties - Uncured @72°F, 50% RH

Mixing Ratio	1:1 by volume	
Color	A-white; B-gray; Mixed-gray	
Viscosity	Non-Sag Gel	
Shelf Life	2-year minimum	
Pot Life (conditioned to 72°F & cured at following temps)		
	72°F	42°F
1 quart	8-12 min.	60 min.
Bead	20-30 min.	3-4 hrs.
Final Cure	1 day	7-10 days

Cured

HDT (ASTM D-648)	125°F	
Bond Strength (ASTM C-882)	2,100 psi. min. @ 14 days	
Compressive Strength (ASTM D-695)	4,000 psi. @ 2 hrs 12,000 psi. @ final cure	
Compressive Yield Strength	12,000 psi. @ 7 days	
Compressive modulus	460,000 psi. @ 7 days	
Tensile Strength & elongation, (ASTM D-638)	8,500 psi. @ 3 days <2 % @ 7 days	
Flexural Strength	15,000 psi. @ 7 days	
Shear Strength (ASTM D-732)	3,900 psi. @ 7 days	
Water Absorption (ASTM D-570)	.5% max	.1%
Pull Out Test (ASTM E-488)	34,000 psi. @ 7 days	
Shore D Hardness (ASTM-2240)	80 min.	
Shrinkage (ASTM C-883)	.002 max.	

All values approximate-will vary with temperature and humidity.

Directions

Surface Preparation

All surfaces must be free of foreign matter and be structurally sound. Prepare surfaces by acid etching, mechanical scarification or sand-blasting. Drill hole and blow out loose dust and debris from the back of the hole moving forward using oil and moisture-free compressed air and brush. Remove foreign matter from surfaces.

Application

Static Mixers – Load a cartridge of SurePoxy 117 into a Kaufman Products' manual or pneumatic mixing gun. If using a manual gun use our high-viscosity gun, item number 016A. Call Kaufman Products technical services department for questions regarding other manual or pneumatic guns.

Dispense SurePoxy 117 until a bead of material is produced that is uniform in color. There must be no visible color streaking, indicating improper mixing of the SurePoxy 117. Typically the first few inches of epoxy cartridges are not adequately mixed to achieve advertised strengths. Discard this improperly mixed material. SurePoxy 117 cartridges must be dispensed under constant, uniform pressure not exceeding 50 psi. If dispensing is not constant, re-establish the same uniform color again before dispensing into the hole(s).

Insert the tip of the static mixer all the way to the back of the hole to be grouted. Dispense material and gradually withdraw the mixer as the hole fills up completely. Check constantly to avoid air pockets and unevenly mixed components. In addition, prior to inserting the material into the hole, visually inspect SurePoxy 117 to determine if the two components are mixing evenly. Always test a small amount of SurePoxy 117 to verify that the material has been adequately mixed, and will harden properly before proceeding. Periodic testing throughout the job is necessary to make certain that the material is consistently being mixed correctly on the jobsite. After injecting the SurePoxy 117, place the dowel bar or threaded rod slowly into the hole while turning the anchor.

Hand mixing - Mix SurePoxy 117 until the color is completely uniform and without any color streaking. Insert into hole and fill from the back outward until the hole is completely full. Insert anchoring device with a twisting motion all the way to the back of the already grouted hole. Attach grout containing plastic disc onto dowel or rebar to prevent run out. For cold weather work it helps to make the discharge opening of static mixers larger by cutting off the smallest opening. Depth of embedment is typically 10-15 times the bolt diameter. Always test a small amount of SurePoxy 117 to verify that the material has been adequately mixed, and will harden properly before proceeding.

Notes

Clean equipment with SurePoxy Thinner, or other aromatic solvents (such as Xylene), immediately after use. Jobsite tests should be conducted in order to verify anchor performance.

Precautions

Minimum age of the concrete is 3-7 days old. Epoxy resins will form a vapor barrier. Do not allow SurePoxy 117 to remain into the static mixer for more than 5 minutes, as the material will begin to solidify causing blockages and impeding future material from being mixed. Do not thin. Not for sealing cracks under hydrostatic pressure. Read Material Safety Data before using. This product is intended as an anchoring adhesive in relatively low mass volumes, and is not intended for use with a constant suspended load. Cold temperature makes the gel thicker and more difficult to mix properly. Warm the material to temperatures above 70°F before using. Please refer to the *General Epoxy Instructions* for complete details on proper application during cold and hot weather. Always pay special attention to cartridges to determine that the static mixer is properly mixing the material.

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.