

EPOXY-SLV

Two-Component, Solvent-Free, Low Viscosity, Epoxy Resin

CSI Div. 03 + 07

03 64 00 Injection Grouting
 07 18 00 Traffic Coatings

Product Description:

EPOXY-SLV is a two-component, very low viscosity, structural epoxy adhesive for low temperature injection grouting.

Typical Applications:

- Crack repair in concrete and masonry

Advantages:

- Cures to form a super tough, strong bond
- Bonds effectively to damp concrete and masonry
- Fills narrow cracks as small as 2 mils wide
- Zero VOC's

Complies With:

- ASTM C881 (Type IV, Grade 1, Class B and Class C)
- AASHTO M235 (Type IV, Grade 1, Class B and Class C)

Substrate Preparation:

- All surfaces must be free from loose sand, dirt, dust, oil, grease, and other foreign substances that could interfere with adhesion.
- Flush cracks clean using an appropriate cleaning solution and rinse well. Cracks may be dry or damp, but must be free of standing water.
- Use clean, oil free, compressed air to blow out any remaining dust or debris prior to installation.

Mixing:

- **CARTRIDGE:** Remove the protective cap from the adhesive cartridge and insert the cartridge into the recommended dispensing tool. Before attaching the mixing nozzle, balance the cartridge by dispensing a small amount of material until both components are flowing evenly. Attach the provided flow restrictor, screw the provided static mixing nozzle on to the cartridge (do not modify mixing nozzle). Confirm that internal mixing element is in place prior to dispensing adhesive. Begin squeezing a small amount of material from the static mixing nozzle onto a disposable surface until the material extruded is a smooth uniform color with no streaks. Material with an off color or streaking is not properly mixed and will not set properly or perform as expected. Do not use this part for installation. Once the proper mixture is achieved, discard the material that was initially extruded from the nozzle per federal, state, and local regulations, then begin installation.
- **BULK:** The volume mixing ratio is 2 Part-A to 1 Part-B (2A:1B). Combine components A and B and mix for 3 minutes with a low speed drill (300 rpm), jiffy mixer, or paddle. Mix only what can be used during the pot life.

Physical and Technical Data	
Gel Time, (ASTM D2471) @ 73°F @ 40°F	21 min 85 min
Cure Time @ 73°F (± 4°F)	7 days
Viscosity, (ASTM D2393) @ 73°F @ 40°F	200 cps 1150 cps
Compressive Yield Strength, (ASTM D695)	16,000 psi
Compressive Modulus, (ASTM D695)	537,000 psi
Flexural Strength, (ASTM D790)	12,000
Flexural Modulus, (ASTM D790)	490,000
Bond Strength (ASTM C882) 2 day cure 14 day cure	3600 3716
Tensile Strength (ASTM D638)	10,400
Elongation at Break (ASTM D638)	2.4%
Color	Dark Purple
VOC Content	0 g/L
All data are averages of several tests under laboratory conditions. In practice climatic variations such as temperature, humidity, and porosity of substrate may affect these values	

Installation:

Pressure Injection

- First prepare the surfaces adjacent to the cracks to expose clean, sound concrete. The injection ports should be spaced from 8" to 36" apart, depending on the crack width and the thickness of the member to be injected. Next, the crack should be sealed at the surface with EPOXY-GEL at a paste width of 1.5" on each side of the crack. After the EPOXY-GEL has cured, inject EPOXY-SLV epoxy with pressurized dispensing equipment or use the EPOXY-SLV cartridges. EPOXY-SLV cartridges are only designed for small repair projects with cracks at least 1/16" in width or larger. For large projects and/or crack widths less than 1/16", use EPOXY-SLV bulk units with automated dispensing equipment. Please contact Aquafin Technical Department for additional guidance and procedures.

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Binding Mortar and Grout for Patching

- Premix entire unit of A and B or exact portions, 2 parts A to 1 part B by volume, with low speed (300 rpm) Jiffy mixer for 3 minutes. Hold back some neat resin for priming patch. Paint concrete to be patched with just enough neat resin to wet out the surface. Slowly add oven-dried aggregate (typically 4-5 parts of aggregate to 1 part epoxy) to the mixed epoxy while mixing with a slow speed Jiffy mixer, being careful not to mix in air. Prepared mortar must be placed before primer becomes tack free. Epoxy mortar may be placed and leveled with trowels. Do not disturb patch until it is fully cured.

Gravity-Feed Cracks

- Inspect and Seal underside of slab prior to filling reflective cracks. Pour neat EPOXY-SLV into crack, continuing placement until crack is full. It may be necessary to "V"-notch cracks to aid in placement.

Clean-up:

EQUIPMENT: Uncured material can be removed with approved solvent. Cured material can only be removed mechanically or by soaking in an epoxy stripper.

MATERIAL: Collect with absorbent material. Flush area with water. Dispose of in accordance with local, state and federal disposal regulations.

Limitations:

- Do not thin with solvents
- Compressed air equipment must have an oil/air separator.
- Minimum age of concrete must be 28 days before applying.
- Always test a small amount to ensure that the product is mixed properly and that the material will harden properly before proceeding with the installation.
- Do not inject cracks wider than 1/4" without contacting Aquafin.
- Surface temperatures must be 35°F or above.
- Do not use in temperatures above 90°F.
- Do not expose stored or uncured product to cold or freezing temperatures below 35°F for any length of time.
- Consult Aquafin Technical Department when mixing or placing outside of the temperature recommendations listed.

Note:

Proper application is the responsibility of the user. Field visits by AQUAFIN personnel are for the purpose of making technical recommendations and not for supervising or providing quality control on-site.

Packaging:

- 16 oz. cartridge (473 ml)
side by side cartridge (2:1 mix ratio)
10 cartridges per case
- 3-gallon unit (11.35 L)
Component A: (2) 1-gallon can
Component B: (1) 1-gallon can
- 15-gallon unit (56.78 L)
Component A: (2) 5-gallon pail
Component B: (1) 5-gallon pail

Storage and Shelf Life:

Shelf Life: 2 years in original unopened container

Storage: 60°F to 90°F in dry and dark conditions

Temperature Considerations: IMPORTANT! Epoxy resins are temperature sensitive and care should be taken to condition all components to between 60°F to 80°F for a minimum of 24 hrs. prior to mixing and placement. Temperatures colder than stated range increase viscosity of resins and inhibit mixing and flow of materials. Temperatures warmer than stated range decrease viscosity of resins, hasten the cure and reduce the working time. Mixing and curing at less than ideal temperatures, <40°F or >90°F, will require special considerations.

Safety:

Refer to SDS. For commercial use only. Avoid contact with skin and eyes. Wear rubber gloves and safety goggles during mixing and application. After contact with skin, wash with plenty of water. In case of eye contact, rinse immediately with plenty of water for 15 minutes and seek medical advice. KEEP OUT OF REACH OF CHILDREN.

LIMITED WARRANTY: AQUAFIN, INC. warrants this product for a period of one year from the date of installation to be manufactured free of defects and to be consistent with its technical properties as stated in our current Technical Data Sheet. This product must be used as directed and within its stated shelf life. AQUAFIN INC. will replace or at our discretion refund the purchase price of any product, excluding cost of labor, which is proven to be defective. Our product recommendations are based on industry standards and testing procedures. It is the buyer's obligation to test the suitability of the product for an intended use prior to using it. We assume no warranties written, expressed or implied as to any specific methods of application or use of the product. AQUAFIN INC. MAKES NO WARRANTY AS TO MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE AND THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES EXPRESS OR IMPLIED. AQUAFIN, INC. shall not be liable for damages of any sort including remote or consequential damages, down time, or delay. Any claim for a defective product must be filed within 30 days of discovery of a problem, and must be submitted with written proof of purchase.

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