Epojet SLV [NA]

Super Low-Viscosity, Epoxy Injection Resin for Crack Repair

NORTH AMERICA [NA]

FOR PROFESSIONAL USE ONLY

DESCRIPTION

Epojet™ *SLV* [NA] is a moisture-tolerant, two-component, 100%-solids, super low-viscosity, epoxy injection resin that penetrates deeply and seals dry and damp hairline, non-dynamic cracks.

FEATURES AND BENEFITS

- Extremely low viscosity creates excellent penetration into fine cracks
- High bond strength
- Prolongs life of cracked concrete
- Moisture-tolerant

INDUSTRY STANDARDS AND APPROVALS

- ASTM: Meets ASTM C881, Types I, II, IV and V, Grade 1, Class C
- AASHTO: Meets AASHTO M235, Types I, II, IV and V, Grade 1, Class C
- Available to be used in USDA- and CFIA-inspected facilities

WHERE TO USE

- Use on interior/exterior horizontal, overhead and vertical surfaces.

- Use for pressure-injecting cracks in load-bearing concrete, masonry and wood.
- Use to repair cracks in horizontal concrete and masonry by gravity feed.

SUITABLE SUBSTRATES

- Properly prepared concrete (at least 28 days old, stable and free of standing water) as well as masonry and wood

Consult MAPEI's Technical Services Department for installation recommendations regarding substrates and conditions not listed.

SURFACE PREPARATION

- Reference ACI RAP-1 (Structural Crack Repair by Epoxy Injection), ACI RAP-2 (Crack Repair by Gravity Feed with Resin) and ACI 503.7-07 (Specification for Crack Repair by Epoxy Injection) dependent on application type.
- Thoroughly clean the crack, removing any substance that could interfere with the bond of *Epojet SLV* [NA], including dirt, paint, tar, asphalt, wax, oil, grease, curing compounds, laitance, foreign substances and adhesive residue.
- Remove debris by brush or vacuum, or by blowing the surface clean with oil-free compressed air.
- Although *Epojet SLV* [NA] is moisture-tolerant, it is generally not recommended to flush cracks with water.

MIXING

Before product use, take appropriate safety precautions. Refer to the Safety Data Sheet for details.

- Acclimate material to a temperature between 65°F and 85°F (18°C and 29°C) before using.
- For the 5-gallon (18.9-L) kit, use automatic injection equipment that will maintain the correct mixing ratio of 4 to 1 for Parts A and B while under pressure.
- *Epojet SLV* [NA] may also be mixed by combining Part A epoxy resin and Part B curing agent into a separate, clean mixing container. Mix with a low-speed drill (at 400 to 600 rpm) and paint-mixing paddle until blended uniformly. Ensure that a ratio of 4 to 1 (A to B) is maintained.

PRODUCT APPLICATION

Read all installation instructions thoroughly before installation.

<u>For pressure injection of cracks</u>

1. Place injection ports where the crack is open. Use *Planibond® AE* or *Planibond AE Fast* to place ports and cap-seal the surface of cracks, typically a day before injection. Ensure that ports are not blocked by the cap-seal epoxy.
2. If feasible on suspended slabs, seal the underside of the crack with *Planibond AE* or *Planibond AE Fast* as well.
3. Space apart the ports no less than the thickness of the concrete being repaired. Increase port spacing accordingly for complete penetration. Additionally, closer spacing may be suitable for injection of very fine cracks, or spacing may be varied slightly in locations where the crack opens and/or where the crack geometry changes.
4. Allow the cap seal to fully cure (time is dependent on temperature).

5. a. Application using dual cartridge: Remove the cap from the cartridge, place a flow restrictor and attach supplied static mixer. With the static mixer facing up, dispense a small amount of *Epojet SLV* [NA] to ensure that material is exiting the static mixer or automatic mixer fully blended (with no streaks).

   b. Application using automatic dispensing equipment: Set the mixing ratio to 4:1 (Part A to Part B) and follow the pump manufacturer's recommendations for placement.

6. Place the mixer or pump nozzle into the lowest injection port. If the back side of the crack has been sealed, stay on a port for as long as it accepts epoxy. Cap the adjoining ports as epoxy extrudes from them, staying on the original port until the pump stalls out or the crack is completely filled.
7. If the pump stalls out, cap the port and continue at the last port where epoxy extruded.

For gravity-feed crack repair

1. If the cracks reflect through the substrate, seal the underside.
2. Cracks should be V-shaped, with a dam of removable sealant on each side of the cracks, to allow material access and create head pressure for adequate penetration.
3. Apply *Epojet SLV* [NA] from the cartridge or pour directly neat from the properly mixed kit into the crack. Continue placement until the crack is completely filled.
4. Lightly sand-broadcast the surface of the exposed epoxy if a subsequent coating or repair material will be applied.

CLEANUP

- Using an appropriate solvent, clean equipment before *Epojet SLV* [NA] cures to a hardened state. Cured material can only be removed mechanically.

LIMITATIONS

- Maintain ambient and substrate temperatures between 40°F and 95°F (4°C and 35°C) during application.
- Application temperature of the substrate must be at least 5 degrees Fahrenheit (2.8 degrees Celsius) above the dew point.
- No additional ingredients are required. Do not thin with solvents.
- Do not use in moving joints, or for sealing slabs on grade.
- Once cured, *Epojet SLV* [NA] is a vapor barrier.
- Not designed to inject cracks wider than 1/8" (3 mm) or under hydrostatic pressure
- Do not apply if rain is imminent.

Product Performance Properties

Laboratory Tests	Results
VOC content (SCAQMD Rule 1168)	< 50 g per L
Typical VOC content per SCAQMD Rule 1168 testing methods	4 g per L
Viscosity – ASTM D2393	80 to 100 cps
Gel time (60 g mass) – ASTM C881	80 minutes

Bond strength, 7-day cure – ASTM C882	> 1,000 psi (6.90 MPa)
Bond strength, 14-day cure – ASTM C882	> 3,000 psi (20.7 MPa)
Compressive strength, 7 days – ASTM D695	> 10,000 psi (69.0 MPa)
Compressive modulus, 7 days – ASTM D695	> 200,000 psi (1 379 MPa)
Tensile strength, 7 days – ASTM D638	> 7,000 psi (48.3 MPa)
Elongation at break – ASTM D638	> 1.0%
Total solids – ASTM D1644	100%

Shelf Life and Application Properties

Shelf life	2 years in original, unopened container at 73°F (23°C). Store at 65°F to 85°F (18°C to 29°C).
Mixing ratio	4:1
Pot life at 73°F (23°C)	20 to 25 minutes
Tack-free time at 73°F (23°C)	4 to 6 hours
Curing time	About 12 hours at 50°F (10°C) substrate temperature About 5 hours at 70°F (21°C) substrate temperature About 4 hours at 90°F (32°C) substrate temperature

Protect containers from freezing in transit and storage. Provide for heated storage on site and deliver all materials at least 24 hours before work begins.

CSI Division Classifications

Maintenance of Concrete	03 01 00
Epoxy Crack Injection Grouting	03 64 23

Packaging

Size and Color
Kit: 1.25 U.S. gals. (4.73 L)
Part A: 1 U.S. gal. (3.79 L), clear
Part B: 0.25 U.S. gal. (0.95 L), amber
Kit: 5 U.S. gals. (18.9 L)
Part A: 4 U.S. gals. (15.1 L), clear
Part B: 1 U.S. gal. (3.79 L), amber

Coverage per 5 U.S. gals. (18.9 L) of mixed epoxy

Yield
1,155 cu. in. (0.019 m^3)

ADDITIONAL INFORMATION

Refer to the Safety Data Sheet (SDS) for specific data related to health and safety as well as product handling.

For information on MAPEI's commitment to sustainability and transparency, as well as how MAPEI products may contribute to green building standards and certification systems, contact sustainability_USA@mapei.com (USA) or sustainability-durabilite@mapei.com (Canada).

WARNING

The test results shown in the TECHNICAL DATA table were obtained in compliance with test methods and curing cycles, if applicable, defined in the industry standards referenced on the Technical Data Sheet. Please note that the use of test procedures or methods other than those indicated in the table could lead to different values and that, in such cases, any liability of our company is excluded.

CONTACT INFORMATION

MAPEI Headquarters of North America
1144 East Newport Center Drive
Deerfield Beach, Florida 33442
1-888-US-MAPEI (1-888-876-2734) / (954) 246-8888

Technical Services
U.S. and Puerto Rico:
Flooring: 1-800-992-6273
Concrete and heavy construction: 1-888-365-0614
Canada:
1-800-361-9309

Customer Service
1-800-42-MAPEI (1-800-426-2734)

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