

ZeraJet™ LV

Structural Concrete-Bonding Injection Epoxy Resin

DESCRIPTION

ZeraJet™ LV is a two-component, low viscosity, 100% solids, epoxy resin that was designed primarily as injection resin and concrete repair mortar. It is offered in two grades: ZeraJet™ LV-480 and ultra-low viscosity ZeraJet™ LV-120 for sealing hairline cracks of foundation.

ZeraJet™ LV is engineered to seal cracks in concrete slabs, walls, masonry, concrete block foundations and other surfaces. Its low-viscosity allow to penetrate the inside of the crack through injection ports or by gravity feeding. It cures to high compressive materials and high bond strength effectively restoring and reinforcing the structure for interior and exterior applications.

WHERE TO USE

- Pressure injection of cracks in structural concrete, masonry, wood, etc.
- Filling porous or honeycombed concrete or grout.
- Gravity feed of cracks in horizontal concrete and masonry.
- Penetrate the concrete to seal it from ingress of chlorides and water.
- Binder for epoxy mortar patching and overlay of interior, horizontal surfaces.
- Anchoring bolts, dowel, and reinforcing bars.

BENEFITS

- 100% solids, zero VOC's
- Low viscosity allowing for low penetration
- Excellent adhesion properties to concrete and steel
- Adheres to damp concrete
- Convenient two-to-one mixing ratio
- Moisture insensitive during the application and throughout the cure

HANDLING PROPERTIES @23°C (74°F)

Mix Ratio, by Volume	2 part A: 1 part B
Viscosity (Mixed)	
ZeraJet™ LV-480	480 cps
ZeraJet™ LV-140	120 cps
Mixed Weight (Density)...	1.09 kg/litre (9.05 lb./US gal)
Pot Life	15 minutes
Initial Cure	4-5 hours
Full Cure	7 days

SURFACE PREPARATION

Prepared concrete substrate should be structurally sound, dry and free from grease, oil, dust, loose particles and all foreign contamination. The preferred method of surface preparation is mechanical abrasion. New concrete should be cured 30 days and any surface laitance or curing compound must be removed. Remove defective concrete, honeycombs, cavities, joint crack voids and other defects by routing to sound material. Rebuild areas with suitable patching materials.

MIXING

Pre-mix component “A” of ZeraJet™ LV first to eliminate the possibility of settlement. Combine 2 parts of A with one part of B into a clean container. Mix thoroughly using a slow speed ½ inch drill motor with “jiffy” type blade for two minutes (minimum). Scrape the sides of the container and continue mixing until the color is uniform.

APPLICATION

Minimum application temperature is 8°C ((45°F) . Precondition all components to 22C for 24 hours before use. ZeraJet™ LV is formulated for mixing and application with automatic pressure-injection equipment. Follow the recommendations and directions supplied by the equipment manufacturer.

Gravity feed cracks: Transfer the mixed material to the pump’s hopper. Stir briefly. The material's workable life may be reduced due to the inherent heat of the injection pump. As soon as the material in the pump's hopper heats up it must either be used up immediately or removed from the pump. Pour neat mixed material of ZeraJet™ LV into cracks until completely filled.

Pressure Injection: The injection pressure depends on the nature and condition of the building structure. Start the injection by filling the lowest crack areas with epoxy resin first. In case of horizontal cracks, carry out the injection from one side in order to avoid air inclusions. When injecting the last packer, check the air vent for emerging resin. A secondary injection should be carried out within the gelling phase of the material (up to approx. 30 min after end of workable life). Please note that when applying epoxy resins the reaction speed is influenced by the temperature of the material and the structural element. Higher temperatures accelerate the reaction speed and lower temperatures slow it down.

LIMITATIONS

- Do not thin with solvents
- Do not seal exterior slabs on grade
- Epoxy mortar is only for interior use
- Not for injection of cracks under hydrostatic pressure
- Not for cracks greater than 6mm (1/4 inch)
- Multiple applications must be done within 3-4 hrs from each other
- Not recommended for areas subjected to steam cleaning, harsh chemicals or heavy impact.
- Do not apply in areas where the humidity is greater than 85%.

COVERAGE

2.45 to 4.9 m²/L (100-200 ft² per gallon) for slab sealing
Crack sealing coverage is determined by depth and length of cracks

PACKAGING

3.79 Litre (1 U.S. gal.)
11.34 Litre (3 U.S. gal.)
56.7 Litre (15 U.S. gal.)

CLEAN UP

Clean up all equipment with xylene prior to material set.

SAFETY PRECAUTION

Consult the Material Safety Data Sheet (MSDS) for specific instructions.

STORAGE

Store in a heated warehouse. Storage at temperatures below 4.5°C (40°F) may cause the resin to crystallize.

SHELF LIFE

Two years from the date of manufacture if kept in the original unopened containers under normal heated warehouse conditions.

WARRANTY

“The recommendations made and the information herein is the result of accurate laboratory and field tests under controlled conditions. We guarantee that the quality and properties of the materials supplied conform to our standards. Zeraus Products Inc. makes no warranties, expressed or implied, as uses and applications are beyond our control. Zeraus Products Inc. shall not be liable for any injury, loss, or damage (direct or consequential) arising from use or inability to use the products. Before using, the user is urged to pre-test the products in his/her own

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