PolyInject EP

High-Strength, Low-Viscosity Epoxy Injection Resin

Description

PolyInject EP is a two-component, solvent-free epoxy injection resin formulated with exceptionally low viscosity and high mechanical performance.

It is engineered for reliable penetration into fine cracks and voids, providing durable structural rehabilitation. The product performs efficiently in warm and tropical climates and develops outstanding bond strength with a variety of mineral and metallic substrates.

Technical Properties

Appearance	Liquid
Solid Content	100%
Mixing Ratio A:B	2 : 1 by weight and volume
Compressive Strength	≥70 N/mm² (7 days)
Tensile Strength	~ 27 N/mm²
Viscosity	+20°C: ~330 MPa +30°C: ~150 MPa +40°C: ~95 MPa
Tensile Adhesion Strength	≥7 MPa (2 days) ≥10 MPa (14 days)
Pot Life (25°C)	~ 60 min
Consumption	1 kg ≈ 1 liter of injected resin

All values are nominal and subject to a tolerance of ± 5-10%

Key Features

- 100% solvent-free formulation.
- Cures without shrinkage.
- Low viscosity for penetration.
- Effective on dry / damp substrates.
- High strength & excellent adhesion.
- Durable, non-brittle performance.

Area Of Use

- Binding and sealing cracks in concrete, masonry, stone, steel, and timber.
- Restoring structural integrity in bridges, industrial facilities, residential buildings, foundations, walls, slabs, beams, and water-retaining elements.
- Providing a protective barrier against water ingress and corrosive agents.
- Re-establishing monolithic action between separated concrete sections

Packaging

PolyInject EP is available in:
20 Kg Kit

Storage

Keep the product in dry and sheltered place at temperature between +5ºC to +35ºC. In these conditions and in closed original containers, the product will have a shelf life of at least 12 months.

Standard Compliance

- ASTM D695
- ISO 527
- ASTM C882

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info@polycrete.me

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Application Procedure

Surface Preparation

All substrates must be structurally sound, free from contaminants such as oil, grease, curing compounds, old coatings, or loose particles.

Concrete and masonry surfaces should be prepared using high-pressure water jetting or mechanical tools such as grinders or chisels.

Cracks must be thoroughly cleaned using compressed air to ensure complete dust removal.

Mixing Procedure

Add the full contents of Component B into Component A.

Mix using a slow-speed electric mixer (max. 250 rpm) for at least 3 minutes until a uniform resin is achieved. Avoid air entrainment.

Application Instruction

Horizontal Crack Injection

- Saturate the crack several times by brushing or apply by gravity flow between temporary “dams” formed.
- For cracks extending through the slab, seal the soffit side first using epoxy repair mortar.

Vertical Crack Injection

- Inject using a suitable low-pressure single-component pump.
- Install packers along the crack according to the selected injection method (surface or bore packers).
- Seal the crack surface to prevent leakage, typically using epoxy repair mortar.
- Begin injection from the lowest packer and progress upward.
- When resin appears at the next packer, close it and continue to the following one.
- After the injection process is finished, remove packers and any temporary sealing compounds.

Quality & Care

All products provided by PolyCrete are manufactured under a management system certified to conform to the requirements of the quality and environmental health & safety standards ISO 9001, ISO 14001 & ISO 45001.

Health & Safety

Wear gloves, goggles to avoid any contact with eyes and skin. In case of splashes in the eyes wash abundantly with warm water and consult a doctor. For further information or particular use, contact PolyCrete Technical Department.

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