

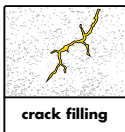
Polyinject EP

2-component epoxy resin for sealing cracks and strengthening structures

With specific chemical and physical properties to seal and bond cracks of widths between 0.05 mm and 10 mm.

CHARACTERISTICS

- ▶ Low viscosity allows penetration into the finest cracks
- ▶ Suitable for structural repairs
- ▶ Excellent bond to concrete, brick and masonry
- ▶ Excellent bond also to moist substrates
- ▶ Minimum creep under sustained load
- ▶ Resistant to wide range of chemicals
- ▶ Non-shrink, adheres with no loss of bond
- ▶ Can be applied pressure less and with pumps



DESCRIPTION

Polyinject EP is a 2-component injection resin on epoxide basis with specific chemical and physical properties to seal and bond cracks of widths between 0.05 mm and 10 mm. Due to its low mixture viscosity Polyinject EP can be applied pressure less as priming resin for concrete renovations or with injection pumps for injections. The particular material basis of Polyinject EP makes application even on slightly moist surfaces possible (see pull-off resistance).

APPLICATION INSTRUCTIONS

Surface preparation

The surface must be stable and free of separating substances. Insufficiently firm layers and concrete slurry must be removed. For this purpose the surface may be prepared by suitable mechanical processes such as e.g. shot blasting, milling or any other suitable mechanical means. Blow the cracks and treated surface with oil free air to ensure complete removal of all dust and loose particles. Ensure that the surfaces are blown dry.

Work preparation

Polyinject EP can be applied pressure less or as injection resin using injection packers. The injection packers may be fixed into holes drilled directly into the crack or drilled diagonally from concrete adjacent to the crack or by the fixing of injection nipples. For further assistance and instructions regarding the packer fixing and design please refer to our Method Statement.



TDS_Polyinject EP_GCC_0519

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Mixing

Pour the hardener (component B) into the resin (component A) in the indicated mixing ratio and mix with an electrical mixer (max. 300 rpm) until a homogenous mixture is produced. Assure that the B component is evenly dispersed. Mixing must be carried out for at least 3 minutes. Only mix sufficient resin that can be used within the pot life of the material.

Pressure less application

In horizontal areas, wider cracks can be simply filled by pouring in Polyinject EP. To avoid wastage and unnecessary material consumption you may use mastics or tapes to build a kind of reservoir along the cracks and treat the area subsequently with a short-hair lambskin roller.

Application with injection equipment

Polyinject EP can be injected with 1-component or 2-component injection pumps. The injection pressure should be at least 4 bar. After the work is finished the injection resin shall be allowed to cure for 24 hours and shall be left undisturbed for this time.

CLEANING

Remove the packers (if used) once Polyinject EP is fully cured and make good any holes or voids with Polyepoxy NF

and allow to cure. Polyinject EP and Polypoxy NF should be removed from tools, equipment and mixers with an appropriate solvent immediately after use. Hardened material can only be removed mechanically.

STORAGE & SHELF LIFE

Store the material between 15°C and 35°C in original packing. Do not expose the material to the direct sunlight and keep away from all sources of heat. In tropical climatic conditions, the product has to be stored in an air conditioned environment and protected from high humidity. The shelf life of the product is 12 months in unopened condition if stored as per the recommendations. Exposure to high temperature and humidity will result in considerable deterioration of the product and reduce its shelf life.

HEALTH & SAFETY

As with all construction chemical products, caution should always be exercised. Protective clothing such as rubber gloves, safety goggles and face mask should be worn when handling the product. Treat any splashes to the skin or eyes with copious amount of fresh water and ask for medical advice. Should any of the products be accidentally swallowed, do not induce vomiting, but call for medical assistance immediately.

SUPPLY

Polyinject EP 10 L

TECHNICAL SPECIFICATION

PROPERTIES	VALUES	TEST STANDARDS
Compressive Strength, [N/mm ²]	>100	ASTM C 579
Tensile, [N/mm ²]	>25	ASTM C 307
Flexure, [N/mm ²]	>50	ASTM C 580
Pot life, [minutes]		
@ 25 °C	Approx. 50	ASTM D 2369
@ 40°C	Approx. 30	
Absorption 24 hours	0.35	ASTM C 413 Method B
Specific gravity, [kg/L]	1.05 ± 0.05	ASTM D 1475
Curing Time,		
Completely dry	6 hours	
Completely cured	7 days	-
Mixture viscosity @25°C, [mPas]	approx. 400	ASTM D 2196
Working temperature, [°C] (temperature of structural component)	10 - 35	-
Ratio of component A : B, [vol %]	4:1	-
Processing time @ 20°C, [minutes]	Approx. 45	-
Slant shear bond strength[N/mm ²]	>35	ASTM C 882

All values given are subject to 5-10% tolerance