

Description

Epoxy based low viscous injection resin with two parts and designed for injection to cracks.

Fields of Application

- Crack repair in concrete.
- Repair of reinforced concrete, masonry and similar mineral construction materials with injection.

Properties

- Due to its low viscosity it can penetrate into cracks quickly and easily.
- High mechanical strengths.
- Perfect bonding to the even damp concrete.
- Solvent free.

Preparation of Substrates

- The concrete surface must be sound, clean and dry. It should be free of frost, curing membranes, waterproofing treatments, oil stains, laitance, friable material and dust.
- Depending on the crack width the holes should be drilled in both two sides of the crack line with an angle of 45° to the surface. Through the crack line, the holes should have a distance of 20-25 cm from each other. The holes should be deep enough for passing across the crack plane and reach opposite side.
- The boreholes have to be cleaned with oil free pressure air from the dust.
- Injection packers should be installed in to the holes than screwed and fixed to the holes.
- All the cracks and packer sides should be sealed with 4101 Tamirart EP.

Application

- Empty component A and B at the given mixing ratio into a bucket (make sure that the containers are completely empty) and mix homogenously.
- **The mixture should be injected within 30 minutes (23°C) after allowing to stand for 2 minutes.**
- Transfer the mixed material to the 1C pump hopper and inject Tecnica 4100 Inject with the suitable injection equipment until the pressure in the manometer does not decrease.
- Start pumping the resin from the lowest injection packers until the resin comes out from upper packers.
- Remove the pipe from the current packer and follow the same instruction to the packer fixed at the top of the surface.
- When the resin leaks out from the upper packer it is understood that the whole crack plane has been fully filled with epoxy and finish the application.
- It should be ensured that the injection resin penetrates all the capillary cracks.
- Once Tecnica 4100 Inject has cured, remove the packers, clean and close the drill holes with 4004 Tamirart S40 non-shrinking mortar.
- Consult to Kalekim Technical Service for injection into the cracks on the floor.

Post-Application Protection & Suggestions

- Epoxy injection applications should be applied by trained and experienced professionals.
- Tecnica 4100 Inject is two-component and should be stored at room temperature for 24 hours before the application.
- During the application, the ambient and surface temperature should not be below +5 °C and above +35 °C.
- The reaction speed is influenced by the temperature of the ambient and the building structure; higher temperatures accelerate, lower temperatures slow down the reaction.
- Tecnica 4100 Inject packaging is ready-to-use. During application, solvents should not be added into the mixture.
- Clean tools properly and immediately after use and thoroughly with a suitable cleaning agent.

Storage

- Packages should be kept dry and cool at between +10°C and +35°C in damp free conditions avoiding direct sunlight.
- Packages should be protected from water, frost and adverse weather conditions.
- Shelf life is maximum 24 months under above mentioned storage conditions.

Packaging

- Component A: 10 kg container
- Component B: 5 kg container

Technical Properties

(at 23°C and 50% RH)

General Data

Appearance/Color	Yellowish Transparent liquid
Shelf Life	24 months in original sealed packaging
Mixing Ratio (A/B)	10 kg / 5 kg
Density (25 °C)	~ 1.02 ±0.02 g/cm ³
Shore D	70
Pot Life (25 °C)	40-50 minutes
Curing Time	7 days

Performance Data

Measurement of Bond Strength on Concrete (7days,N/mm ²) TS EN 1542	≥ 2.5
Compressive Strength (7days,N/mm ²) TS EN 196	≥ 60

Application Data

Application Temperature	+5 °C / +35 °C
Reaction Temperature	>+5 °C
Surface Temperature	+5 °C / +35 °C
Relative Humidity	Max.80%

Tecnica 4100 Inject