

## TECHNICAL DATA SHEET

TEKINJECT EPOXY 100 is an epoxy injection system for structural repair of cracks in concrete or masonry structures.



### I. Applications

TEKINJECT EPOXY 100 can be used for structural repair of cracks and this in a variable application field:

- Structural injection of cracks in concrete and masonry structures (Slabs, tunnels, beams, pillars,...)
- Transferring mechanical strength by epoxy-injection
- Anchoring bars

### II. Properties

- TEKINJECT EPOXY 100 is a 2-component solvent free system containing pure epoxy and hardener
- Due to the low viscosity a high penetration can be reached.
- High adhesion properties to concrete
- Very good mechanical properties
- Can be used in dry and non-dry structures.

## III. Technical Data

TEKINJECT EPOXY 100 A-component:

Density (23°C)	1,13 g/cm <sup>3</sup>
Viscosity (25 °C)	96 mPa.s

TEKINJECT EPOXY 100 B-component:

Density (23°C)	1,13 g/cm <sup>3</sup>
Viscosity (25 °C)	97 mPa.s

TEKINJECT EPOXY 100:

Pot life (23°C)	> 40 minutes
Mixing ratio	100 A-component/ 50 B-component
Viscosity (25°C)	± 100 mPa.s
Storage temperature	Between 5 °C and 30 °C
Tensile strength (BS EN 527-3:1996)	29 N/mm <sup>2</sup>
Elongation at break (BS EN 527-3:1996)	53 %
Flexural strength (BS EN 527-3:1996)	59 N/mm <sup>2</sup>
Compressive strength (ASTM C109:C109M:2016a)	± 106 N/mm <sup>2</sup>
Glass transition temperature (20°C to 200°C, 10 K/min) (ISO 11357-2)	60°C - 65°C

## IV. Processing

### 1. Resin preparation

For the injection of the TEKINJECT EPOXY 100 we recommend the use of an 2-component injection pump with variable mixing ration. The mixing ratio of components A/B = 2/1. This needs to be maintained during processing.

### 2. Substrate preparation

Check the quality of the substrate, injection means increased pressure on the substrate, so the substrate needs to be of sufficient strength.

Determine the packers according to the injection technique, substrate dimensions and type of pump. According to the selected packer and injection technique, the holes in the substrate need to be drilled. Tighten the packers well in order to make sure the injected pressure is distributed.

The distance and pattern of the packers/bore holes depend on the substrate structure and the injection technique. Please consult your TEKINJECT contact person for more information or the specific application manuals of the injection techniques.

### 3. Injection

The TEKINJECT EPOXY 100 mixture can be injected into the cracks as long as needed to be sure that the crack is filled. Observe the pot life during the work.

Be aware that the temperature of the structure and the ambient temperature will have an influence on the pot life. The higher the temperature, the shorter the pot life.

The selected injection pressure is as low as possible. Start at the lowest point and increase until you see the resin flowing. Injection with low pressure ensure a deeper penetration of the resin and complete sealing of the structure.

Start injecting at the lowest point in case of a vertical application and at the widest point for a horizontal application. Open the valve of the gun, hold the pressure, and inject until the resin appears in the next packer. Stop pumping and proceed to the next packers. To make sure the material is penetrated in the full structure, opening and closing the valve and letting the material flow, can be advised. Continue the process until the whole structure is sealed.

### 4. Cleaning

If the components are liquid, the pump can be cleaned with TEKINJECT EPOXY CLEANER. Hence, we recommend, every time there is a stop of more than 15 minutes, and at the end of the injection works to flush the pumps with TEKINJECT EPOXY CLEANER, which is a cleaner with high flash point.

Packers can be removed, and the boreholes can be sealed with a fast-setting mortar.

## V. Packaging

TEKINJECT EPOXY 100 COMP A:      20 kg plastic jerry can  
IBC  
200 l drum

TEKINJECT EPOXY 100 COMP B:      10 kg plastic jerry can  
IBC  
200 l drum

## VI. Shelf life

24 months after production date in the original, unopened and undamaged packaging, according to the storage instructions of each component (see technical data of this sheet). If the following recommendations are not followed, the shelf life of the material cannot be guaranteed.

## VII. Precautions and Safety Recommendations

- Wear personal protective equipment when handling this material (safety glasses, gloves, protective clothing).
  - In the event of contact with the eyes: rinse thoroughly with clean water and consult a doctor if needed.
  - In the event of skin contact: rinse with water thoroughly. Wash with water and soap.
  - Mix residues of the TEKINJECT EPOXY 100 with sand and dispose of in accordance with local/regional/national/international regulations.
- Consult the Material Data Safety Sheet for more information on health and safety regulations.

## VIII. Company details

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