

## TECHNICAL DATA SHEET

**1-component, pre-catalyzed, low viscous, solvent free polyurethane-based injection system. Reacts in a semi-rigid, closed cell foam in combination with water.**

**Designed for water sealing of concrete structures.**



### I. Applications

TEKINJECT PU 1C FAST STOP is an extremely versatile injection system that can be used for the injection of very fine cracks. Sealing and penetrations in a variable application field:

- Due to its low viscosity, it can be used to seal very fine cracks (from 0,2 mm to several cm)
- Sealing of water under high flows and high pressure (when TEKINJECT PU 1C CAT is added)
- Soil injections and creation of horizontal and vertical barriers

### II. Properties

- TEKINJECT PU 1C FAST STOP is a 1-component, pre-catalyzed, polyurethane based injection system that needs water to react and reacts into a semi-rigid, hydrophobic grout that reacts in a closed cell structure.
- Good chemical resistance against many acids, bases, solvents, and fuels (check chemical resistance list)
- No shrinkage after curing
- Volume increase up to 6200 %
- Non-toxic: does not contain solvents.
- Non-flammable.
- Excellent adhesion to mineral building materials such as concrete, cement and brick.

## III. Technical Data

- Typical values:

### TEKINJECT PU 1C FAST STOP RESIN:

Color	Brown
Viscosity (20°C)	195 mPa.s
Density (20°C)	1,05 – 1,1 g/cm <sup>3</sup>
Flash point	>148 °C
Storage temperature	Between 10 °C and 30 °C
Min. application temp	5 °C (lower is possible with adapted techniques)

### TEKINJECT PU 1C CAT:

Color	Transparent yellow
Viscosity (20°C)	35mPa.s
Density (20°C)	1,01 g/cm <sup>3</sup>
Flash point	>148 °C
Storage temperature	Between 10 °C and 30 °C

- Reaction times:

	10 % Water	Expansion
5°C	Start: 21 sec End: 1 min 05 sec	Volume increases up to 24 times
20°C	Start: 10 sec End: 52 sec	Volume increases up to 25 times
25°C	Start: 9 sec End: 49 sec	Volume increases up to 25 times

- Reaction times with TEKINJECT PU 1C CAT at 20 °C:

% Cat	10 % Water	Expansion
2 %	Start: 9 sec End: 47 sec	Volume increases up to 26 times
5 %	Start: 8 sec End: 43 sec	Volume increases up to 27 times
10 %	Start: 7 sec End: 38 sec	Volume increases up to 29 times

## IV. Processing

### 1. Resin preparation

Shake well before use. Avoid moisture ingress.

Due to the fact that TEKINJECT PU 1C FAST STOP is a pre-catalyzed resin, no special preparation is needed, the material is supplied ready-to-use.

Depending on the ambient and structure temperature, the reaction times will vary (check 3. Technical data, Reaction times). The higher the temperature, the quicker the reaction time. Secondly the amount of water present in the structure will also influence the reaction time of the mixture.

In case a quicker reaction time is required, TEKINJECT PU 1C CAT can be added.

### 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 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 PU 1C FAST STOP needs to be injected with a 1-component pump. 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 ensures 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 PU 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 PU CLEANER, which is a cleaner with high flash point.

Hardened material needs to be cleaned with PU dissolver.  
Packers can be removed, and the boreholes can be sealed with a fast-setting mortar.

For more details see the application manual of the TEKINJECT PU 1C FAST STOP.

## V. Packaging

TEKINJECT PU 1C FAST STOP RESIN: 20 kg plastic jerry can

## VI. Shelf life

12 months after production date in the original, unopened and undamaged packaging. If the following recommendations are not followed, the shelf life of the material cannot be guaranteed.

## VIII. Precautions and Safety Recommendations

- Wear safety and protection materials when handling this material (glasses, gloves, protective clothing).
  - In the event of contact with the eyes: rinse thoroughly with clean water and consult a doctor.
  - In the event of skin contact: rinse with water thoroughly.
  - Mix residues of the TEKINJECT PU 1C FAST STOP with sand and dispose of in accordance with local regulations.
  - The resin can react with water or atmospheric humidity to form CO<sub>2</sub> gas. This can build up pressure in a closed package or container that has already been opened.
  - Consult the Material Safety Data Sheet for more information on health and safety regulations.

## Company Details

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