TEKINJECT PU 1C FAST FLEX

TECHNICAL DATA SHEET

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

Designed for crack and joint sealing.

I. Applications

TEKINJECT PU 1C FAST FLEX is an injection system used for sealing cracks and joints in concrete. Due to its low viscosity and variable reaction time, it can be used for:

- Sealing of cracks and joints (from 0,3 mm up to 40 mm)
- Sealing of water under high flows
- Injection of injectable hoses

II. Properties

- TEKINJECT PU 1C FAST FLEX is a 1-component, pre-catalyzed, polyurethane based injection system that needs water to react and transforms itself into a flexible, hydrophobic grout with closed cell structure.
- Good chemical resistance against many acids, bases, solvents, and fuels (check chemical resistance list)
- No shrinkage after curing
- Free expansion: up to 19 times
- 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 FLEX RESIN:

Color	Yellow
Viscosity (20°C)	215 mPa.s
Density (20°C)	1,1 g/cm^3
Flash point	>148 °C
Storage temperature	Between 10 °C and 30 °C
Min. application temp	5 °C (lower is possible with adapted techniques)
Expansion Volume	Up to 19 times in volume

- Reaction times:

Temperature	Start	End
5 °C	47″	2'20"
15 °C	36"	2'10"
20 °C	30"	2'05"
25 °C	24"	1'42"

TEKINJECT PU 1C FAST FLEX reacted with 5% water (pH 7)

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

% Cat	5 % Water	Expansion
2 %	Start: 23 sec End: 1 min 38 sec	Up to 20 times
5 %	Start: 18 sec End: 1 min 07 sec	Up to 21 times
10 %	Start: 14 sec End: 55 sec	Up to 22 times

IV. Processing

1. Resin preparation

Shake well before use. Avoid moisture ingress.

Because TEKINJECT PU 1C FAST FLEX 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 FLEX 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 can be cleaned with TEKINJECT PU SOLID CLEANER.
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 FLEX.

V. Packaging

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

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.

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 FLEX with sand and dispose of in accordance with local regulations.
- The resin can react with water or atmospheric humidity to form CO2 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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