TECHNICAL DATA SHEET

1-component (+CAT), low viscous, solvent-free polyurethane based injection system. Reacts in a flexible, closed cell, foam in combination with water.

Designed for crack and joint sealing.

I. Applications

TEKINJECT PU 1C SUPER 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:

- Sealing of cracks and joints (from 0,6 mm up to 40 mm)
- Sealing of water under high flows
- Injection of injectable hoses

II. Properties

- TEKINJECT PU 1C SUPER FLEX is a 1-component, polyurethane based injection system that needs sufficient water to react and transforms itself into a flexible, hydrophobic foam 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 20 times
- Non-toxic: does not contain solvents.
- Non-flammable.
- Excellent adhesion to mineral building materials such as concrete, cement and brick.
- Variable reaction time by adjusting the TEKINJECT PU 1C SUPER FLEX CAT. Even quicker reaction times can be obtained by adding the TEKINJECT PU 1C ACCELERATOR.

All information is given in good faith. The application, use and processing of these products are beyond our control and therefore TEKINJECT cannot be held responsible for the results obtained and any damage.
Depending on the evolution of knowledge and techniques TEKINJECT reserves the right to change the composition and conditions of use of its products without notice. This sheet replaces all previous ones.

III. Technical Data

- Typical values:

TEKINJECT PU 1C SUPER 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

TEKINJECT PU 1C SUPER FLEX CAT:

Color	Yellow
Viscosity (20°C)	10 mPa.s
Density (20°C)	0,97 g/cm^3
Flash point	>148 °C
Storage temperature	Between 10 °C and 30 °C

TEKINJECT PU 1C SUPER FLEX Mixture:

Color	Yellow
Viscosity (20°C)	204 mPa.s
Density (20°C)	1,09 g/ cm^3
Min. application temp	5 °C (lower is possible with adapted techniques)
Expansion Volume	Up to 20 times in volume

- Reaction times:

	6% CAT	10% CAT
15°C	Start: 40 sec End: 2 min 15 sec	Start: 35 sec End: 1 min 35 sec
25°C	Start: 20 sec End: 1 min 15 sec	Start: 15 sec End: 1 min 5 sec

TEKINJECT PU 1C SUPER FLEX reacted with 5 % water (PH7)

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IV. Processing

1. Resin preparation

Create 1 mixture with the TEKINJECT PU 1C SUPER FLEX RESIN and adequate quantity TEKINJECT PU 1C SUPER FLEX CAT.

Depending on the ambient and structure temperature, the reaction times will vary. 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. The reaction time of the mixture can be altered by changing the component TEKINJECT PU SUPER FLEX CAT. The more TEKINJECT PU SUPER FLEX CAT is added, the quicker the reaction time. We recommend a maximum of 10% TEKINJECT PU SUPER FLEX CAT to be added. For quicker reaction times, we recommend using the TEKINJECT PU 1C ACCELERATOR.

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 PU 1C SUPER FLEX mixture 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.

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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 SUPER FLEX.

V. Packaging

TEKINJECT PU 1C SUPER FLEX RESIN:	20 kg plastic jerry can 1000 kg IBC
TEKINJECT PU 1C SUPER FLEX CAT:	2 kg plastic bucket 20 kg plastic jerry can

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 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 SUPER 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 Data Safety Sheet for more information on health and safety regulations.

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VIII. Company Details

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