

TECHNICAL DATA SHEET

2-component, low viscous, polyurethane based injection system. Reacts in a flexible rubber.

Designed for crack and joint sealing and as secondary sealing after using 1-component open cell foams.



I. Applications

TEKINJECT PU 2C FLEX is an injection system used for sealing cracks in concrete. Due to its low viscosity, it can be used to seal fine cracks. The long reaction time ensures sealing in a variable application field:

- Sealing of cracks (from 0,2 mm up to several cm, depending on the strength of the counter pressure)
- Injection of injectable hoses
- Sealing of dry structures
- Secondary sealing after using 1-component open cell foams.

II. Properties

- TEKINJECT PU 2C FLEX is a 2-component, low viscous, polyurethane based injection system that does not need water to react. Without water the material becomes a flexible rubber. In combination with water, the material will slightly foam at the initial contact point.
- Good chemical resistance against many acids, bases, solvents, and fuels (check chemical resistance list)
- NO expansion
- Non-toxic: does not contain solvents.
- Non-flammable.
- Excellent adhesion to mineral building materials such as concrete, cement and brick.
- Quicker reaction times can be obtained by adding the TEKINJECT PU 2C ACCELERATOR.

III. Technical Data

- Typical values:

TEKINJECT PU 2C FLEX – comp A:

Color	Light Brown
Viscosity (20°C) (EN ISO 3219)	375 mPa.s
Density (20°C) (EN ISO 2811)	0,99 g/cm ³
Flash point	> 148 °C
Storage temperature	Between 10 °C and 30 °C

TEKINJECT PU 2C FLEX – comp B

Color	Brown
Viscosity (20°C) (EN ISO 3219)	40 mPa.s
Density (20°C) (EN ISO 2811)	1,1 g/cm ³
Flash Point	> 148 °C
Storage temperature	Between 10 °C and 30 °C

TEKINJECT PU 2C FLEX –Mixture:

Color	Brown
Viscosity (20°C) (EN ISO 3219)	125 mPa.s
Potlife (w/o), min	5 h 05 min
Elongation at Break (hardened) (EN ISO 527)	123 %
Tensile strength (EN ISO 527)	0,75 MPa
E-modulus (EN ISO 527)	3,63 MPa
Pumpable time (20°C)	5 u (tested with 1l sample)
Min. application temp	5 °C (lower is possible with adapted techniques)

- Processing times:

	A + B
5°C	6 h 10 min
15°C	5 h 12 min
20°C	5 h 05 min
25°C	4 h 30 min

IV. Processing

1. Resin preparation

This resin can be injected with a 1- or 2-component pump. Depending on the selected procedure (check 3. Injection below), a mixture needs to be created or the 2 components are used separately.

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. For quicker reaction times, we recommend using the TEKINJECT PU 2C 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 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

Option 1: Create 1 mixture with the TEKINJECT PU 2C FLEX - A component and TEKINJECT PU 2C FLEX - B component. Mix the two components in a volume ratio of 1:1. Inject the mixture through a pump within the pumpable time.

Option 2: Inject the resin by means of a 2-component pump. The components TEKINJECT PU 2C FLEX - A and TEKINJECT PU 2C FLEX – B need to be injected in a volume ratio of 1:1.

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 2C FLEX.

V. Packaging

TEKINJECT PU 2C FLEX – A component:	5 kg metal can 10 kg plastic jerrycan or metal can 20 kg plastic jerry can 1000 kg IBC
TEKINJECT PU 2C FLEX – B component:	5,4 kg metal can 10,8 kg plastic jerrycan or metal can 21,6 kg plastic jerry can 1000 kg IBC

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 2C 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.

VIII. Company Details

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