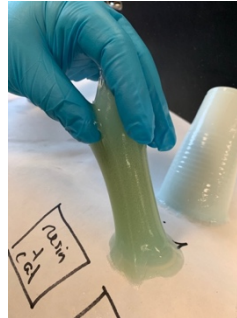


TECHNICAL DATA SHEET

Complementary component to the TEKINJECT AC injection systems.

Designed for sealing in structures and substrates where more flexibility is required of the gel formation. Or in case of fluctuating water tables.



I. Applications

TEKINJECT AC POLYMER is an injection system used for sealing structures and substrates where more flexibility, elasticity is required of the gel formation, like expansion joints. In case of fluctuating water tables, the TEKINJECT AC POLYMER makes the TEKINJECT AC injection system in a more durable injection system, less sensitive to dry and wet cycle. The high advantage of the TEKINJECT AC injection systems, namely its extremely low viscosity, will not be affected by TEKINJECT AC POLYMER component, as this component has an extreme low viscosity too.

The TEKINJECT AC POLYMER component needs to be added the TEKINJECT AC injection systems in case of:

- Sealing of joints, certainly when adequate movement is observed in the joint
- Curtain injection beneath slabs or brickwork in order to re-establish the waterproofing capabilities of the structure in case of fluctuating water tables.
- Soil consolidation and creation of horizontal barriers in case of fluctuating water tables.

II. Properties

- TEKINJECT AC POLYMER is a 1-component, very low viscous, polymer based injection system that is water-expanding and reacts into a durable gel.
- Good chemical resistance against many acids, bases, solvents, and fuels (check chemical resistance list)
- Non-toxic: does not contain acrylamide, methacrylamide, formaldehyde or solvents.
- Non-flammable.
- Excellent adhesion on mineral building materials such as concrete, cement and brick.
- Variable reaction time from few seconds to several minutes.
- High water retention capacity: when the injected cracks dry out due to temperature or ground water level fluctuations the gel will not crack easily
- The cured gel has excellent durability in wet-dry cycles.
- TEKINJECT AC POLYMER with acrylic resin is CE marked according to EN 1504-5, System 2+ as a concrete injection product for swelling fitted filling of cracks.

III. Technical Data

- Typical values:

TEKINJECT AC POLYMER:

Color	White opaque liquid
Viscosity (20°C)	150 mPa.s
Density (20°C)	1,0 - 1,05 g/cm ³
PH	7,5
Active parts	50%
Storage temperature	2 - 35°C

TEKINJECT AC FLEX + POLYMER Mixture:

Color	White opaque liquid
Viscosity (20°C)	10-30 mPa.s
Density (20°C)	1,10 - 1,15 g/cm ³
PH	6,0-7,5
Elongation at Break (hardened)	300%
Tensile strength	
Water absorption	<30%
E-modulus	
Min. application temp	4°C

TEKINJECT AC HARD + POLYMER Mixture:

Color	White opaque liquid
Viscosity (20°C)	10-30 mPa.s
Density (20°C)	1,10 - 1,15 g/cm ³
PH	6,0-7,5
Elongation at Break (hardened)	40%
Tensile strength	
Water absorption	< 20%
E-modulus	
Min. application temp	

- Reaction times:

12,5% TEA	0,5% NPS	1% NPS	2,5% NPS	4% NPS	5% NPS
5°C					
10°C					
15°C					
20°C					
25°C					

IV. Processing

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.

1. Resin preparation

Create 2 mixtures with the TEKINJECT AC components in plastic buckets. When mixing the components, you should always use a wooden spatula:

Mixture 1: 20 kg TEKINJECT AC RESIN + 6% of TEKINJECT AC ACCELERATOR

Mixture 2: 20 kg TEKINJECT AC POLYMER + 2% of TEKINJECT AC NPS

Depending on the ambient and structure temperature, the reaction times will vary (check 4. Technical data, Reaction times). The higher the temperature, the quicker the reaction time. The more TEKINJECT AC NPS component is added, the quicker the reaction time.

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 absorbed.

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

Always use a 2-component stainless steel pump for acrylic injection resins. The 2 mixtures are mixed to a homogeneous mixture in the mixing head of the pump and inject in a 1-to-1 volume ratio.

We always advise to do an on-site trial in plastic cups to determine the reaction speed of the material.

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 deep 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 acrylic components are liquid, the pumps can be rinsed with water. Hence, we recommend flushing the pumps with water every time you stop the injection for more than 15min.

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

Liquid materials can be cleaned with water.

Hardened material needs to be removed and can be put in discharge

For more details see application manual of the TEKINJECT AC materials

V. Packaging

TEKINJECT AC FLEX Polymer: 20 kg plastic jerry can or 1000 kg IBC

VI. Shelf life

12 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.

Acrylate materials are highly sensitive to UV-light and high and low temperatures.

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.

Consult the Material Data Safety Sheet for more information on health and safety regulations

VIII. Certification

TEKINJECT AC POLYMER is certified according to the norm EN1504-5: Concrete injection product for swelling filling of cracks

IX. Company Details

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