

# **PUInjectGrout**

**PUInjectGrout** is a low viscous, single Component, hydrophobic, MDI-based, polyurethane injection resin without catalyst. It only reacts with water and forms a Flexible Polyurethane Foam. This product can be injected pure directly into a leaking crack, fracture or joint. After injection has taken place, the chemical will expand and fill the void forming a tight, impermeable elastomeric seal and stops the water flow.

#### **USES**

- Shut off water leaks in concrete, brickwork and sewers where movement and settlement may occur.
- Water cut-off of water leaks in foundation such as diaphragm walls, sheet piles and secant piles.
- Sealing water-carrying cracks and joints in tunnel segments.
- Curtain grouting behind tunnel, concrete, brickwork and sewer walls.
- Injection of failing membranes and lines in tunnels and bridges.

#### **ADVANTAGES**

- 1-component. No catalyst required.
- Immediate increase of viscosity is ideal for active leaks.
- Can be injected as 1-component.
- Highly flexible foam is ideally suited for dynamic cracks and joint where a high degree of settlement and movement can occur.
- Cured foam is chemically inert, non-toxic and safe for the environment.

#### **Application**

- Start the injection at the first packer, for vertical joints or cracks this is usually the lowest packer.
- Do not over pressurize while injecting; the correct injection pressure is the pressure that allows to resin to flow into the crack or joint. Avoid injecting at pressure of more than 1500psi (100bar).
- If unreacted resin comes out of the joint or crack, stop the injection and move on to the next packer.
- After the last injection of resin into the packer, shoot a little bit of water into the packer in order to make sure that the last injected resin will react as well.
- Only catalyse the resin you will use within the next few hours.
- Always flush the pump out at the end of the day. Resin left in the pump overnight can damage the pump.

#### **Technical Data**

• Color: Yellow - Brown

• Density:  $1,10 - 1,12 \text{ kg/dm}^3$ 

• Viscosity: 23°C:250 – 300 mPa.s

Reaction time at  $23^{\circ}$ C – 10 Seconds after come in contact with water Finish Reaction within 3 Minutes time after which the mixture starts reacting and foams up time after which the mixture is no more fluid.



## **Physical Properties**

PUInjectGrout reacts with water and form a flexible polyurethane foam

- Due to its flexibility, the foam absorbs somewhat the movement of the crack
- Penetrates deep in fine cracks.
- Reacts with water with the formation of carbondioxyde gas. This gas produces
  as swelling pressure and the resin expands to a foam sealing all water
  penetration.
- Free expansion: 2700%
- Chemically resistant against water, weak acids and alkali, most organic solvents.
- Excellent adhesion to mineral construction materials (such as concrete, cement, brick), metal and certain plastics etc.

## **Packing**

PUInjectGrout is supplied in a packing of 10Kgs

### **Storage and Shelf Life**

Storage in area with temperature between  $10^{\circ}\text{C}$  and  $30^{\circ}\text{C}$  for 18 months when unopened and undamaged.

**Note:** The information submitted in this publication is based on our current knowledge and experience. In view of the many factors that may affect processing and application these data do not relieve processors of the responsibility of carrying out their own tests and experiments neither do they imply any legally binding assurance of certain properties or of suitability of specific purpose. It is the responsibility of those whom we supply. Our products to ensure that any proprietary rights and existing laws and legislations are observed.

