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Keminject PU 100

A Low Viscous Solvent-Free, Hydrophobic Polyurethane Injection

Description	**Keminject PU 100** is a 1-component, pre-catalyzed, low viscous, solvent free polyurethane-based injection system. Reacts in a semi-rigid, closed cell foam in combination with water. It is designed for water sealing of concrete structures
Where to use	**Keminject PU 100** is an extremely versatile injection system that can be used for the injection of very fine cracks. Sealing and penetrations in a variable application field: • Due to its low viscosity, it can be used to seal very fine cracks (from 0.2 mm to several cm) • Sealing of water under high flows and high pressure (when the **ACCELERATOR** is added) • Soil injections and creation of horizontal and vertical barriers
Advantages	• 1-component, pre-catalyzed, polyurethane-based injection system that needs water to react and reacts into a semi-rigid, hydrophobic grout that reacts in a 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 30 times • Non-toxic: does not contain solvents • Non-flammable • Excellent adhesion to mineral building materials such as concrete, cement, and brick
Properties	
Color	Brown
Viscosity (20°C)	125 mPa.s
Density (20°C)	1.05 – 1.1 g/cm³
Flash point	>148°C
Storage temperature	Between 10°C and 30°C
Min. application temp	5 °C (lower is possible with adapted technique)
Expansion Volume	Up to 30 times in volume
Reaction times (10% Water)	
5°C	Start: 35 sec End: 3 min 05 sec
20°C	Start: 20 sec End: 2 min 07 sec
25°C	Start: 16 sec End: 1 min 47 sec
Surface 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 **Prokem Technical office** for more information or the specific application manuals of the injection techniques

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Mixing	• Shake well before use. Avoid moisture ingress • Due to the fact that **Keminject PU 100** 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, the **ACCELERATOR** can be added
Application	• The **Keminject PU 100** 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
Packaging	• 20 kg plastic jerry can
Shelf Life & Storage	**Keminject PU 100** has a shelf life of 12 months in the original, unopened, and undamaged packaging
Cleaning	If the components are liquid, the pump can be cleaned with **special solvent** 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 **special solvent**, which is a cleaner with a 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
Health and Safety	• Confined area must be well ventilated and no naked flame allow • Contact with the skin should be avoided as certain sensitive skins may be attached by contact with the resin occurs, the skin should be washed immediately with soap and water- not solvent • Use goggles- gloves and a breathing mask when applying • Eye splashes are to be washed with plenty of water • If ingested seek medical advice
Additional Information	**PROKEM** provides the construction industry with a comprehensive range of construction chemicals and specialty products answering the queries of modern engineers for trouble free durable structure **PROKEM** designs tailor made products should there be critical application that requires specific properties rather than our main range. For our customer's satisfaction **PROKEM** reserves the right to change the properties of its products All orders are accepted subject to our current term of sale & delivery Users must always refer to the most recent issue of the local product data sheet for the product concerned, copies of which will be supplied on request **PROKEM** extends technical services to include after-sales support to assist users in the proper handling of our products