

Teknopur Enjeksiyon

Polyurethane Based,
Water Reactive Injection System



Product Description

Two component, low viscosity, water reactive polyurethane resin. Hydrostatic pressurized, pressurized, injection resin to stop the flow of water in very small amounts.

Areas of Usage

- High pressure or high flow, pressure, against water leaks,
- To block water leaks in the diaphragm / retaining walls,
- In places that are not subject to movement, large gaps, for example; rock cracks, fracture defects, fill layers, joints, cracks and segregation of concrete,
- Tunnel construction, LDPE or HDPE membrane coating injection.
- NATM drilling and blasting in wet environment, pre-injection for watertightness and consolidation in front of TBM,
- In the wet or dry environment of fillets, fillings,
- In the compression process of gravel fillings in wet or dry environment,
- In soil stabilization and filling anchoring work,
- Where there is a high amount of water currents, the porous reinforced concrete backing is used in curtain grouting.

Features and Benefits

- TEKNOPUR ENJEKSIYON is resistant to joints in joints or cracks.
- Not flammable, solvent free.
- The curing time is lowered in seconds with the catalyst.
- The cured product is resistant to most organic solutions, light acids and microorganisms.

Application Instructions

Always shake before using the catalyst. The free particles in the cracks or joints must be cleaned. 3 mm denier water leaking cracks should be closed first by applying TEKNOPUG. Drill holes at an angle of 45 degrees with respect to the diameter of the injector to be used (Paker). If there is no straight line, it is advisable to perforate the holes on both sides of the crack. The hole depth must be half the depth of the reinforced concrete wall. The distance from the crack should be half of the thickness of the concrete. The distance between the holes may be 15-90 cm, depending on the situation. Packers (injectors) should be placed in the holes and brought to a durable state that can occur during injection. In a dry environment, water is squeezed before the injectors. This process helps to remove dust and foreign matter in the crack / joint. The water in the crack / joint will enable the resin to pass into the reaction. With resin, pre-determined catalyst is prepared, catalyst should be shaken well beforehand. The resin should be kept away from water. Otherwise it will react. Start to foam and start to freeze in the injection pump and equipment and plug the pump. If splashes or joints need to be tightened, two separate pumps must be used.

Application Notes / Restrictions

- Injection should be initiated from the first shot.
- Start with the injection from the lowest pressure of the injection pump, start the resin overflow the pressure should be raised slowly. Depending on the crack size, reinforced concrete thickness and general conditions, the pressure can range from 14 bar to 200 bar.
- The resin leakage from the concrete is a good sign that the resin is working in concrete. Excess fluids such as rags / and is expected to expand the resin. The injection process is continued when the flow stops.
- During the injection process, the foam will flow through the cracks, first the water and then the foamed resin.
- When the resin reaches the second pouch, the injection process is stopped.
- The injector is placed in the second pouch and the process is repeated.
- When several paker injections are made, the first paker is returned and the resin is injected again.
- After resin injection, the pakkers can be repelled with water, which will allow the remaining resin to react.
- The pakkers should not be removed from the place unless the resin is cured.
- The hole gaps due to the pakkers can be repaired with TEKNOREP.
- After the injection process is finished, the pump and equipment should be cleaned within 30 minutes.
- Waste should be disposed according to local regulations.
- Immediately after the application, not yet hardened; Instruments; with solvent, hand, clean warm water and soap. The hardened mortar can only be mechanically cleaned.

Technical Data

General Information					
Chemical Structurel			Polyurethane Based		
Isocyanates			17 ± 2% (EN ISO 1242: 2006)		
Package			21,70 kg set		
Storage Conditions / Shelf Life			12 months		
Density			Component A: 1,15 ± 0,03 (gr / ml) (EN ISO 2811-2: 2002) Catalyst: 0,90 ± 0,03 (gr / ml)		
Viscosity			A Component: 50-100 mPa.s (EN ISO 3219: 1994) Catalyst: 40-60 mPA.s		
Flashing Point			>100°C		
Catalyst quantity at 20°C and curing time:					
Catalyst Rate	1/100	1/50	1/20	1/15	1/10
Reaction Time	300 Sec.	120 Sec.	60 Sec.	45 Sec.	30 Sec.

Technical data are approximate values obtained from the laboratory study of Tekno Construction Chemicals for finished products obtained at +20 ° C air temperature and 50% relative air humidity.