SUFFIX INJECTION PUR 1K

Polyurethane Injection Resin Based, Single Component, Hydrophobic, Crack Filling and Waterproofing Material

INJECTION

Description of Product

SUFFIX INJECTION PUR 1K is a polyurethane-based, single-component, hydrophobic injection resin developed to stop water leaking from cracks or pores on concrete surfaces and to fill/fix cracks and loose formations. It reacts with water to form a semi-rigid hydrophobic foam. Since it has low viscosity, it penetrates concrete cracks quickly and deeply and effectively stops water leaks or leaks. It is applied with a single component injection pump.

Areas of Use

Underground structures such as foundations, garages, tunnels and underground passages, wastewater and sewage systems, water reservoirs and tanks, concrete curtains, waterways and dams.

Advantages

Provides adherence to wet surfaces. It is applied with the help of a single component pump. It reacts with water and forms foam. Expansion factor is high. Foam formation time can be shortened by the addition of SUFFIX INJECTION PUR 1K CAT catalyst (accelerator).

Technical Properties

	Suffix Injection PUR 1K	Suffix Injection PUR 1K CAT
Product Structure	Polyurethane Resin	Catalyst
Appearance	Amber, Liquid	Yellow or Orange, Liquid
Viscosity (25°C, mPas)	500 ± 100	100 ± 20
Density (25°C,gr/cm^3)	1,10 ± 0,05	1,05 ± 0,05

The above values are given at 23 0 C and 50% relative humidity.
High temperatures shorten the times. Low temperatures prolong it.

Reaction

Using 100 gr SUFFIX INJECTION PUR 1K R + 5% water + 10% SUFFIX INJECTION PUR 1K CAT at 23°C;
Reaction start: 6 sec ± 1 sec.
Reaction end time: 105 sec ± 10 sec.

Application Information - Surface Preparation

In cracks or joints, loose particles/residues should be removed. Leaking cracks more than 3 mm wide should be covered with the appropriate method/material. Holes are drilled at a 45° angle according to the diameter of the packer to be used. If the crack is not a straight line, it is recommended to drill the holes staggered on both sides of the crack. The hole depth should be half the depth of the reinforced concrete thickness. The distance of the hole from the crack should be half the concrete thickness.

The distance between the holes can be between 15 cm and 90 cm depending on the current situation.

Packers are placed in the holes and must be made resistant to the pressure that may occur during injection.

In cases where the environment is dry, water is sprayed into cracks or joints before injection. This process will help remove dust and foreign materials in the crack/joint. Water in the crack/joint will allow the resin to react.

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Mixing

Mix the resin part of the product thoroughly with the catalyst in the amount given. Before application, care should be taken to prevent the mixture from coming into contact with moisture and water. Otherwise, the efficiency of the injection will decrease as it will start to react.

The container containing the mixture should be closed to prevent premature reaction.

If water needs to be sprayed into cracks or joints, two separate pumps must be used.

Injection

When injecting, you should start from the first pack. The injection process should be started with the lowest pressure of the pump and the pressure should be slowly increased until the resin begins to overflow. Depending on the crack size, reinforced concrete thickness and general conditions, the pressure may vary between 14 and 200 barata.

Resin leakage from the reinforced concrete to the surface is a good indicator that the resin has penetrated into the reinforced concrete. Excessive flows should be blocked with pieces/rag and waited for the resin to expand. When the flow stops, the injection process continues. During the injection process, first water, then foamed resin, and then pure resin will flow from the cracks.

When the resin reaches the second package, the injection process is stopped.

The syringe is placed in the second package and the process is repeated. After injection is made from several packs, the first pack is returned and the resin is injected again. After resin injection, water can be squeezed from the packers again. This will allow the remaining resin to react.

Packers should not be removed before the resin cures.

Holes created by packers can be filled with cement-based repair mortar.

After the injection process is completed, water leakage is checked and if there is no problem, the insulation suitable for the surface area is installed.

Cleaning After Application

All equipment used in the application should be cleaned with a suitable solvent immediately after the application.

Storing and Shelf Life

It can be stored in its unopened original containers, in dry environments between 15°C and 25°C, for 9 months from the date of production. Material in opened buckets should be used immediately.

Packing

20 + 2 kg

Safety Precautions

During application, work clothes, protective gloves, glasses and masks that comply with occupational and worker health rules should be used. Due to the irritating effects of the uncured product, the components should not be contacted with the skin or eyes. In case of contact, wash with plenty of water and soap. If swallowed, consult a doctor immediately. For detailed information, please refer to the Safety Data Sheet (MSDS) or contact our technical units. Keep out of reach of children.

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