

LEAKINJECT

Expansive polyurethane resin in contact with water for waterproofing through injection.

LEAKINJECT is a low viscosity semi-rigid polyurethane resin for injection, which reacts when in contact with water, forming an impermeable and stable seal.

FIELDS OF APPLICATION

- Blocking water leaks with high pressure and flow rate.
- Injection sealing of cracks and fissures in: dams, tanks, tunnels, collectors, garages, etc.
- Waterproofing joints between screens, buried structures, tunnels, underground station, roads, car parks, etc.
- Waterproofing wells, galleries, through elements and back wall stoppers.
- Filling in large hollows and cracks in rocks and concrete structures.

PROPERTIES

- **LEAKINJECT** forms a high strength seal inside cracks and joints.
- **LEAKINJECT** is a fast reaction, semi-rigid polyurethane foam, for use in sealing leaks with high pressure and/or flow rate water.
- Free expansion: minimum 1700 % - 2200 %.
- No shrinkage after hardening, guaranteeing dimensional stability.
- After its reaction with water and subsequent hardening, it does not shrink or swell in the presence of water, guaranteeing its dimensional stability over time.
- Excellent adherence to usual construction materials such as concrete, mortar, brick, metal and some plastics.
- Controlled reaction speed according to the amount of catalyst used.
- The resulting foam is chemically resistant to water, weak acids and bases, mineral oils, fungi, bacteria, underground waters, sea water and petrol derivatives.
- Easy injection. Suitable for use with equipment designed for injecting single component systems.
- Low viscosity, even during the injection process, which is maintained constant until the reaction with the water starts, which ensures good penetration.

HOW TO USE

Preparing the substrate:

The condition of the substrate must be analysed. Before injecting, it is important to leave the edges of the cracks and fissures clean, so that their route can be seen.

Mixture:

Although it is a single component, polyurethane-based product, **LEAKINJECT** needs a catalyst to start its reaction with water.

Pour the amount of **LEAKINJECT** resin that is going to be used, into a clean, fully dry container. Then, add between 6 and 9 %, by weight, of the catalyst, **LEAKINJECT CAT**, mixing both components very well. The most suitable proportion is to be determined on site according to the application. So, in applications with high hydrostatic pressure, the system will have to react immediately when it comes into contact with water, and therefore it must catalyse at 9 %. If greater penetration is required, catalyse at 6 %.

Application:

Once the resin and catalyst are mixed, inject the mixture with the help of a single component pump, either manual or preferably electrical or pneumatic. It is essential that all the equipment is perfectly dry, avoiding any contact between the mixture and any humidity or water. The usual steps in an injection process are as follows:

- General joint or fissure cleaning.
- Curing out, making and cleaning the injection bore holes.
- Fixing **PACKER** injectors.
- Sealing of the joint or fissure with **BETOPLUG** mortar in order to guarantee that the resin goes all along the joint.
- Low pressure injection of the **LEAKINJECT** mixture.
- Final substrate cleaning.

Tool cleaning:

The tools and the injection equipment are to be cleaned with universal solvent immediately after use. Once hardened, it can only be removed mechanically.

COVERAGE

The consumption will vary depending on the use and application. It is advisable to carry out an on-site test to determine the approximate amount to be used and the proportion of catalyst to use.

PACKAGING

Pre-metered units:

- **LEAKINJECT** resin: 25 kg drum
- Catalyst **LEAKINJECT CAT**: 2.3 kg carboy

STORAGE

12 months, in its original closed packaging, in a cool, covered place, protected from humidity and sunlight and at a temperature between +10 °C and +30° C.

INDICATIONS TO TAKE INTO CONSIDERATION

- **LEAKINJECT** reacts according to the temperature and humidity.
- High ambient humidity can cause a small reaction on the resin once mixed with the catalyst, forming a rigid skin on its surface. In this case, remove it with the help of a spatula before continuing with the application.
- Mix resin and catalyst just before starting the injection.
- Once the package is open the product deteriorates quickly, and so it must be used as soon as possible.
- Do not mix more quantity than can be injected in a reasonable time.

TECHNICAL DATA

Product base	Polyurethane hydro-expansive resin
Free expansion	1,700 - 2,200 %
Colour:	Resin: Dark brown Catalyst: Transparent
Density	Resin: 1.10 - 1.20 g/cm ³ Catalyst: 0.92 g/cm ³
Viscosity (25 °C)	Resin: 111 mPa·s Catalyst: 36 mPa·s

Reaction times

kg cat. / 25 kg resin	1.5 kg	1.87 kg	2.25 kg
% Cat by weight in resin	6 %	7.5 %	9 %
10 °C	1' 38"	1' 24"	1' 10"
15 °C	1' 34"	1' 25"	1' 15"
20 °C	1' 17"	1' 05"	54"

HEALTH AND SAFETY

All the information about conditions of usage, use, storage, transport and removing chemical waste is available on the product Safety Data Sheet.

The product and its packaging must be disposed of according to current legislation and it is the responsibility of the product end user.

LEGAL NOTICE

The data contained in this document is based on our experience and technical knowledge, gained during laboratory assays, and our bibliography. We will not be responsible for any product applications not indicated in this file. The dosage and consumption data are only guidelines, based on our experience, and may alter due to atmospheric or on-site conditions. For correct dosage and usage amounts, it is necessary to conduct a trial or assay "in situ", for which the client is responsible. If you have any doubts or require additional information, please contact our technical department. December 2016.