

InjectProECO-Polygel

Hydrophilic, flexible polyurethane grout for stopping active water leaks

CSI Div. 03

03 64 00 Injection Grouting

Product Description:

InjectProECO-Polygel is a solvent-free, polyurethane injection grout designed to react with added water to produce an impermeable foam or elastomeric soft gel.

Typical Applications:

Any concrete structure with heavy water leaks such as

- Water retaining/storage structures
- Concrete Dams
- Tunnels
- Manholes
- Expansion joints

Reaction Times:

Gel:Water	Cream Time	Gel Time	End Product
1:1	20-30 sec	50-60 sec	Strong foam
1:5		45 sec	Strong gel
1:10		80 sec	Gel
1:15		180 sec	Soft gel

Installation Procedures:

Refer to Aquafin InjectPro Grouting Guide for full instructions.

InjectProECO-Polygel is injected with a two-component pump with water as the second component. Polygel only needs water to achieve the final foam or gel, to control the reaction speed and to flush the machine.

• Heavy water leakages

Because of the high reactivity in combination with water, InjectProECO-Polygel is used for shutting off heavy water leakages (up to 5 m³ per minute). The ratio to be used is 1:1 or pure resin.

• Expansion joints

InjectProECO-Polygel can be used in expansion joints because of the foaming capability and good flexibility of the end product as well as a good adhesion to the aggregate. The ratio to be used: InjectProECO-Polygel to water 1:4 or 1:5.

• Gel membrane/screen injection

Because of the low viscosity of the water/polymer mixture, it can be used as a liquid but solidifying gel membrane applied to the positive side of a concrete structure from the negative side; ratio to be used InjectProECO-Polygel to water 1:10. The gel mixture will fill the voids from the aggregates (like sand etc.) behind the wall to avoid that water will come into the wall construction. The procedure is drilling through the wall and pumping the Polygel water mixture via packers.

• Masonry walls/screen injection

Because of the low viscosity in combination with a relatively long pot life the Polygel can be used in masonry walls as a vertical barrier to fill the voids/joints in masonry walls to avoid that water comes through the voids

Physical Properties	InjectProECO-Polygel
Color	Clear Yellow
Specific Gravity	1.04 g/cc
Viscosity @ 25°C (77°F)	1366 cps
Shelf Life	18 months

to the surface of the wall. Ratio to be used Polygel to water 1:12/13. The procedure is drilling holes to 80 % of the wall thickness or until 5 cm from the back of the wall and pumping the Polygel-water mixture via packers in the wall.

• Gel encapsulation

Because of the low viscosity in combination with a good adhesion Polygel can be used for the gel encapsulation method where voids are filled with a jelly material (e.g. delaminated concrete slabs etc.). The ratio to be used Polygel to water 1:10.

• Oakum technique

Because of the reactivity with water the Polygel can be used for the activated oakum technique where oakum or any other kind of carrier material is soaked in pure Polygel. The oakum and the Polygel are applied into any void where small water leakages can be a problem (pipe outlet through walls etc.).

• Injection hoses

Because of the low viscosity in combination with a relatively long pot life the Polygel can be used for injection hoses being installed in new structures for immediate waterproofing or for later waterproofing. The ratio to be used Polygel to water 1:12/13.

Packaging:

InjectProECO-Polygel: 5 gallon pails

Storage & Shelf Life:

2 years when stored properly in unopened original container. Product is highly moisture sensitive. Store in original sealed containers at temperature between 60°F - 90°F. Opened containers must be handled properly to prevent moisture contamination.

Limitations:

- Temperature significantly affects viscosity. Protect material from excessive heating and cooling prior to grouting to avoid affecting viscosity.
- If using water baths to cool or heat pails avoid splashes to prevent water coming in direct contact with resin - this will activate the reaction.
- Do not warm material or packaging above 90°F.
- Do not reseal containers of contaminated materials as it can create pressure.
- Clean up spills with adequate ventilation and appropriate personal protective equipment. Cover the spill area with absorbent material such as clay or vermiculite and transfer to metal waste containers. Wash area with decontamination solution (5-10% solution of sodium carbonate). Dispose of waste in accordance with federal, state and local regulations.

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Note:

Proper application is the responsibility of the user. Field visits by AQUAFIN personnel are for the purpose of making technical recommendations and not for supervising or providing quality control on-site.

Safety:

Refer to SDS. For commercial use only. Avoid contact with skin and eyes. Wear rubber gloves and safety goggles during mixing and application. After contact with skin, wash with plenty of water. In case of eye contact, rinse immediately with plenty of water for 15 minutes and seek medical advice. KEEP OUT OF REACH OF CHILDREN.

LIMITED WARRANTY: AQUAFIN, INC. warrants this product for a period of one year from the date of installation to be manufactured free of defects and to be consistent with its technical properties as stated in our current Technical Data Sheet. This product must be used as directed and within its stated shelf life. AQUAFIN INC. will replace or at our discretion refund the purchase price of any product, excluding cost of labor, which is proven to be defective. Our product recommendations are based on industry standards and testing procedures. It is the buyer's obligation to test the suitability of the product for an intended use prior to using it. We assume no warranties written, expressed or implied as to any specific methods of application or use of the product. AQUAFIN INC. MAKES NO WARRANTY AS TO MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE AND THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES EXPRESS OR IMPLIED. AQUAFIN, INC. shall not be liable for damages of any sort including remote or consequential damages, down time, or delay. Any claim for a defective product must be filed within 30 days of discovery of a problem, and must be submitted with written proof of purchase.

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