

WATERBAR INJECT - MAINTAINABLE SWELLING INJECTION WATERBAR SYSTEM
Description

MacLennan Waterbar Inject combines the grouting and resin injection capabilities of our Injection Hose with the swelling capabilities of a waterbar system. The resulting hybrid provides a very high performance waterbar system used for the sealing of construction joints within retained concrete structures.



The system offers many benefits over conventional waterbars, especially that in addition to swelling when in contact with water, it also has the ability to grout poorly compacted concrete and seal leaking construction joints, post-construction.

The hydrophilic thermo-plastic elastomer outer casing will seal the joint against leaks by swelling to up to 400 times its original size when in contact with water, sealing the joint fully and reliably.

The injection hose system features Micro-Ports equally spaced over its entire circumference giving the hose optimum grouting characteristics. The microscopic Micro-Ports open at 1 bar and the injected material is then allowed to perform its task of penetrating all areas of the construction joint that require grouting. As a result, a more secure and longer lasting sealing of the construction joints is achieved.

The Micro-Ports prevent infiltration of concrete silt and foreign bodies into the injection hose itself. After successful injection, the reduction in pressure after injection causes the Micro-Ports to close. The injection channel can then be flushed out without any threat of injection material seeping back into the injection hose.

Technical Data

	Outer Core	Inner Core
Material	PTE	Plastic
Colour	Blue	Blue
Profile	Flat bottomed	Hexagonal
External Diameter (mm)	25.0	13.0
Internal Diameter (mm)	13.0	6.0
Watertightness	7 bar	
Installation Temperature	5°C to 35°C	
Service Temperature	-10°C to 50°C	

Key Benefits

The outer casing Swells to up to 400 times to quickly seal leaks at construction joints.

- Provides post-construction grouting of poorly compacted concrete at construction joints.
- Injection of resins for the sealing of leaks identified post-construction.
- No kicker or rebate required, reducing site labour costs.
- Can be injected with all currently available grouting materials (PUR resin, PUR foam, EP resin, polymer gel matrix, ultra-fine cement grout).
- Repeated injection possible (with polymer gel matrix and ultra-fine cement).
- Injection possible to 30m sections.
- Guaranteed continual flow of the injection material due to the star-shaped interior geometry, even if the hose follows sharp bends.

Suitable Substrate

Static construction joints in poured concrete retained structures.