



Polyurethane Injection Systems

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Product Description

ShieldInject S1 is low viscosity single component hydrophobic polyurethane with good flexibility. It is used to seal leaks in concrete cracks and joints. The injection system utilised for the product can be static mixers, pumps, surface ports and applied technologies surface pastes as a complete concrete crack repair system.

Upon direct contact with water ShieldInject S1 produces a rapid reaction forming expanding foam allowing all gaps and joints be filled and completely sealed off. Fully cured ShieldInject S1 foam will not shrink in volume because it is a hydrophobic formula. The foam that is produced is closed cell foam that cuts off water penetration.

Technical/Performance Data

Specific Gravity	1.1
Colour	Brown
Viscosity @ 25°C	300 cps
Flash point	>250°F VOC Content
Initial Curing Time	60 seconds
Full Curing Time	10-15 minutes

Advantages

- ✓ Water activated curing
- ✓ Stopping water seepage
- ✓ Single component
- ✓ Expands up to 25-30x initial volume
- ✓ Superior concrete adhesion
- ✓ Injection in leaking diaphragm walls
- ✓ Pre injection of cracks and joints in concrete
- ✓ Filling of water bearing voids
- ✓ Sealing of flowing / leaking water through voids, cracks, and joints in concrete structures

Features

- ✓ Solvent free
- ✓ Hydrophobic in fully cured state
- ✓ Non-shrink after curing
- ✓ Flexible foam
- ✓ Reacts rapidly in moist surroundings
- ✓ Good bonding to wet surfaces

Application Guidelines

Wet Conditions

Inject this mixture through a single component injection pump. The moisture/water in the ground or structure will cause the foaming reaction.

Dry conditions

For injection purposes, flush the cracks with water to thoroughly wet the injection area. Inject this mix through a single component injection pump.

Note:

After ShieldInject S1 injection work has been completed, empty pump of any remaining material and thoroughly flush with a high aromatic solvent (Xylene). It is then recommended to pump some Flushing oil/Hydraulic oil through the pump. In this way the pump stays clean until the next use. Failure to do so may lead to pump and line blockage due to the reaction between the remaining resin and air humidity.

Packaging

Standard 18kg/pail. Other sizes may be available on request.

DISCLAIMER

The information provided herein, especially recommendations for the usage and the application of our products, is based upon our knowledge and experience. Due to different materials and equipment used, as well as varying working conditions and environments beyond our control we strictly recommend carrying out intensive trials to test the suitability of our products regarding the required processes and applications. This data sheet is provided free of charge, and we do not accept any liability regarding the above information or regarding any verbal recommendation, except for cases where we are liable of gross negligence or false intention.