

Polyinject Hose PVC

PVC injection hose system

Used to seal joints in concrete against water gress

CHARACTERISTICS

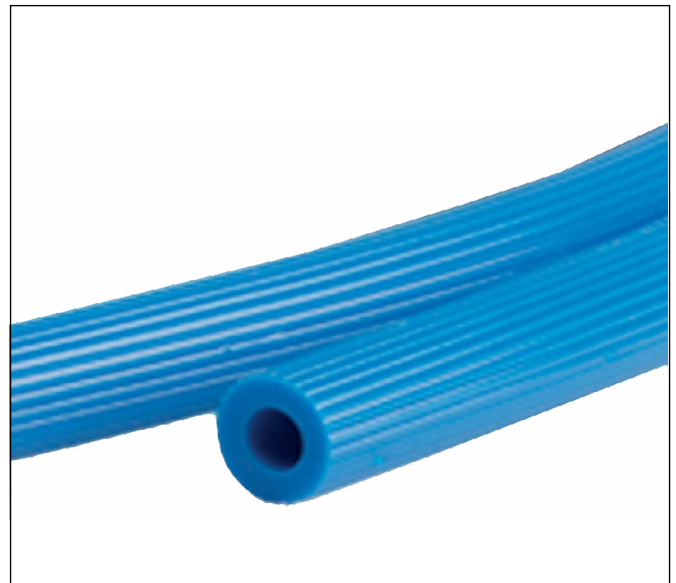
- ▶ A perfect sealing solution.
- ▶ Excellent installation features, fast and easy to install.
- ▶ Economical handling due to simple, easy connection of accessory pieces.
- ▶ Injection hose is supplied on a handy spool; that allows for uncomplicated cutting to length due to numerical markings printed at every meter along the hose.
- ▶ Low consumption of grouting material due to optimum inner hose diameter.
- ▶ Maximum safety features as grouting processes are performed under very low pressures.
- ▶ Simple grouting process with multi-injectable capabilities.
- ▶ Multiple grouting materials can be processed.
- ▶ Ultimate grouting processes performed at 10m - 12m intervals between injection points. Overlength injections of up to 30metres can be achieved with special presses and use of correct equipment.
- ▶ Highly economical through rapid laying times and rapid injection processes.

DESCRIPTION

Polyinject Hose PVC is a state of art, multi-injection hose system, used to seal joints in concrete against water gress. This injection hose is used to transport grouting materials and then disperse them in to the concrete joint via micro openings along the injection hose. Polyinject Hose PVC is a highly resistant, robust, fully tested, single channel injection hose system that is made of specially developed PVC materials. Its expert design state of art technology is the reason for its high performance, unique processing ability and total functionality. Polyinject Hose PVC has the ability for multi-injectable grouting processes depending upon the grouting material used. This ability allows the system to be re-injectable for the life time of the structure, giving total peace of mind and assurance that the structure can be fully sealed and resealed , if and when required. A great advantage if movement or shrinkage occurs between concrete joint faces of the structure .

FIELDS OF APPLICATION

- all areas where construction joint are present and require sealing against water or require a particular joint sealing process



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- water excluding and water retaining structures
- basement and below ground structures
- tunnels and underground vaults
- water and sewerage treatment plants
- ground and elevated reservoirs and dams
- suspended slabs and roof slabs

GENERAL INFORMATION

Unsealed construction joints can decisively lessen the durability and utility-value of concrete structures. Nowadays, injection hose system are being increasingly used for sealing construction joints in waterproof concrete structure .Their advantages are numerous when compared to traditional Water stop systems. It is not always required to inject the hose but usually only if the joint is leaking , thus , making it a very cost effective procedure. The area of application is usually at the construction joint (other application areas can be applied) where hardened and fresh concrete have have to be joined in such a manner that the sealing effect of the construction joint is fulfilled equally. Simple and rapid installation is achieved at all positions, levels and angles. Polyinject Hose PVC can also be laid where the installation of traditional systems is constructively impossible: for example , on geometrical

complicated surfaces such as sheet piling, diaphragm and contiguous pile walls and old to new construction. Reliable sealing of construction joints, cracks in construction joints and destroyed areas of concrete (gravel pockets and cavities) can be filled via Polyinject Hose PVC. Previously this has been possible to achieve with conventional waterstop systems. Polyinject Hose PVC is used in all types of construction joints and in particular during the construction of water and sewage treatment plants, dams, barrages, underground garages, in tunnels and the construction of foundations, basements, bridges and power stations.

TECHNICAL FEATURES

Profile	Circular
Colour	Blue
Outer Diameter	13mm
Inner Diameter	6mm
Length markings every	1 meter
Polyinject hose pvc micro opening dimensions	
Length Approx	3mm
Distance of openings approx	10mm
Location around hose	4equal positions

Polyinject Hose PVC is equipped with discharge ports (microscopic ports), equally spaced over its entire circumference. This provides Polyinject Hose PVC hose with optimum grouting characteristics. During the injection process, the macroscopic 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 joint is achieved. The micro-ports prevent any infiltration of concrete silt and foreign bodies into the injection hose itself. After successful injection, the pressure is released, which causes the micro-ports to close. The injection channel can then be flushed out with water and without the threat of any injection material seeping back into the injection hose or water injection into the joint during the flushing process. The specially designed micro-ports are designed in such a way that they act as valves, allowing the release of materials out of the hose but not back into it.

INJECTION MATERIALS

- Acrylic gel
 - P.U resin
 - E.P resin
 - Ultra fine cement
- Note : Only acrylic gel or Ultra fine cement can be used for re-injectable processes.

SYSTEM COMPONENTS

- Polyinject Hose PVC – 100 meter roll
- Hose clamp – holds hose into position on concrete

surface, used in conjunction with impact plug.

- Impact plug – securing pin for use with hose clamp.
- Hose coupler/ joiner – joins injection Hose or to join reinforced PVC hose.
- Injection pumps, injection resins & injection nipples – used to perform the injection process

INSTALLATION PROCEDURES

1. Installation of Polyinject Hose PVC is preferably position in the middle of the substrate or if not possible, with a minimum of 100mm concrete cover from any outside edge.
 2. The Polyinject Hose PVC must lie flat on the 1st concrete section with the hose clips at 150mm apart. If the concrete surface is rough, then the hose clip spacing need to be closer so the hose is touching the surface of the concrete.
 3. The standard length of Polyinject Hose PVC, between injection points is approximately 10- 12 meter. This will achieve the ultimate injection process.
 4. At the injection point location where each individual hose length meets, an overlap of 150mm is required and with the two hoses laid parallel to each other at a distance of 30mm apart.
 5. The injection points are to be installed in such a way as to allow access at all times.
 6. Over length applications of up to 30 meters are possible but the correct installation procedures and use of Acrylic Gel injection material be used via a 2K Pump.
- Note: Please refer to the manufacturer's installation procedures and guidelines (available upon request)

SIMPLE INJECTION PROCESS

1. Check the continuation of the hose by flushing with water or with air.
2. The hose is injected via the injection point until traces of the injected material are discharged from the Vent end (opposite end of hose). This vent end is closed by means of an injection nipple as soon as the injected Material flows freely (without air pockets) from the vent.
3. The flow and extent of the injection material in the concrete joints can be monitored during the injection Process by means of the injection pump's pressure gauge if using a 2K pump.
4. The injection process is continued until constant pressure has been reached. Constant pressure indicates that the concrete joints are absorbing no more injection material and thus signaling the end of the process.
5. Any injection material still within the injection channel is simply flushed out by means of a water pump (2K pump Unit). Minimal pressure is required and it is simple and easy to achieve.
6. On completion of the flushing process, the injection channel is ready for future reinjections, if required.

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NOTE: Installation and inject ion method processes are available upon request. Fully trained specialist contractors are available to perform the installation and inject ion processes for Polyinject Hose PVC.

WRITTEN SPECIFICATION

Where shown on the drawings, the inject ion hose system shall be Polyinject Hose PVC, multi - injectable, single channel, PVC injection hose with microopening injection ports. The injection hose system must have the ability to be multi - injectable for the life time of the structure and proof of this is to be provided by an independent laboratory test document and be submitted to and accepted by the engineer. All component s of the s y s tem must be original parts supplied from the manufacturer.

HEALTH AND SAFETY

For further information or advice on health and safety precautions, safe handling, storage and correct disposal of products, please refer to the most recent product Material Safety Data Sheet (MSDS), which is available upon request.

Apart from the information given here it is also important to observe the relevant guidelines and regulations of various organisations and trade associations as well as the respective standards. The aforementioned characteristics are based on practical experience and applied testing. Warranted properties and possible uses which go beyond those warranted in this information sheet require our written confirmation. All data given was obtained at an ambient and material temperature of +23°C and 50 % relative air humidity at laboratory conditions unless specified otherwise. Please note that under other climatic conditions hardening can be accelerated or delayed.

The information contained herein, particularly recommendations for the handling and use of our products, is based on our professional experience. As materials and conditions may vary with each intended application, and thus are beyond our sphere of influence, we strongly recommend that in each case sufficient tests are conducted to check the suitability of our products for their intended use. Legal liability cannot be accepted on the basis of the contents of this data sheet or any verbal advice given, unless there is a case of wilful misconduct or gross negligence on our part. This technical data sheet supersedes all previous editions relevant to this product.



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