

# MasterInject 900

## Re-injectable hose waterstop system for construction and cold joints in concrete

### DESCRIPTION

MasterInject 900 is a blue flexible PVC hose available in two sizes. The hose comprises a solid core and lateral openings covered by neoprene strips, all banded by an open webbed nylon mesh.

### FIELDS OF APPLICATION

MasterInject 900 is designed to replace waterbar for use in concrete structures which contain joints other than expansion joints and subject to hydrostatic pressure on one or both faces of the structure. Its use prevents passage of water through concrete joints in the following typical applications.

- Water reservoirs / tanks
- Canals
- Dams
- Sewage treatment plants
- Liquid storage vessels
- Any sub base concrete construction
- Water excluding or retaining structures

### FEATURES AND BENEFITS

MasterInject 900 offers the following benefits:

- Eliminates costly design, welding and installation of waterbar.
- Water cannot penetrate treated joint and rebar, unlike traditional installation where water is in contact with the reinforcement up to the waterbar.
- The installed system assures a watertight structure.
- Fast easy installation procedures even to complicated design detail.
- Proven and predictable performance.
- Joints can be tested for watertightness before backfilling or membrane tanking operations.
- System enables retro-injection, to stop leaks caused subsequently by settlement or structural movement at the construction joint.
- Completely maintenance free.
- Possible to retro-fit against existing structures.

### TECHNICAL PROPERTIES

MasterInject 900 re-injectable hose is a specially formulated PVC compound. The material is tough, flexible, resilient, chemically inert, is not affected by weathering, low

temperatures, or constant immersion in water. It will withstand rough treatment during installation and is easy to install.

MasterInject 900 re-injectable hose is unaffected by alkalis, sewerage, most water solutions of organic chemicals, aliphatic hydrocarbons (fuel), mineral oils, acids and alcohols.

Two basic types of MasterInject 900 injection hose are available:

**MasterInject 900 1:** Outside diameter: 19mm, longitudinal internal injection hole diameter: 6mm, discharge openings diameter: 3mm. Installation within all types of concrete joints.

**MasterInject 900 2:** Outside diameter: 24mm, longitudinal internal injection hole diameter: 10mm, discharge openings diameter: 5mm. Installation within long concrete joints, or voids where large quantities of injection materials are to be injected.

### APPLICATION PROCEDURE

#### Preparatory work:

All MasterInject 900 re-injectable hoses should be protected from oil, dirt, concrete spatter and damage and should be left clean to receive concrete. The surface where the MasterInject 900 re-injectable hose will be installed has to be smooth. The surface generated by an internal vibrator while compacting the concrete will usually be suitable.

#### Method:

The MasterInject 900 re-injectable hose consists of the injection hose itself and the vent ends. These are specially fabricated PVC hoses to withstand injection pressure, in green and transparent colours. The vent ends allow the fixing of injection equipment at a later stage and generally project 20cms out of the concrete surface.

After pouring the concrete, only the vent ends are visible. The different colours make the identification of the start and end of the hose after concreting. The injection hose and vent ends must be encased in at least 5cm of concrete. The MasterInject 900 re-injectable hose is installed in lengths up to a maximum length of 12m. For up to 600 mm wall thickness the MasterInject 900 hose should be installed at the centre of the wall thickness. The hose is clamped into position with MasterInject 900 clips spaced about 200-250mm

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apart. The hose must not be fastened to the reinforcement bars in the wall. It is essential that there is a direct contact between the hose and the concrete. If aggregate or debris lie on the concrete, these must be removed, to prevent floating of the hose in the freshly poured concrete.

### GUIDELINES

**Installation, injection, reinjection, and selection of materials should be entrusted to an experienced and certified MasterInject 900 applicator.**

The injecting of the hose may be carried out at any time either before switching off the dewatering as a precautionary measure or afterwards if leaks are noticed. The hose may be injected with water under pressure to test the integrity of the joint.

**Injection of the MasterInject 900 hose with our Master-Roc range permits reinjection. Use of any other resins will render the hose unusable.**

Injection always starts at one end adopting the following procedure:

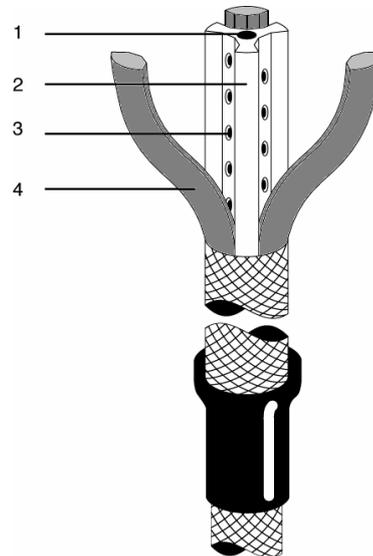
- Fill the hose with injection material by means of an injection pump until it flows out at the other end.
- Plug that end with the end cap.
- Pressurise the MasterInject 900 hose.

Continue to inject until the moment that no material flows into the joint (there is no or only slight pressure drop at the gauge); resin is seen flowing out of the joint or a predetermined quantity has been injected. Sealing is achieved by moderate pressure and a longer injection time, as opposed to high pressure over a brief injection period.

- If required the same procedure may be adopted from the other end of the MasterInject 900 hose, this is to ensure even pressure distribution over the whole length.
- Within the gel time, pressurise the hose again briefly.

**Note:** Normally one injection is enough to completely seal the joint; however this depends on the quality of the concrete and/or the water pressure.

### COMPONENTS OF THE MASTERINJECT 900 HOSE



1. Injection diameter, 6 or 10mm, depending on the injection material.
2. Solid hose core for resisting concrete pressure.
3. The lateral openings with a diameter of 3 or 5mm, each staggered by 1cm, ensure a uniform discharge of the injection material.
4. The three neoprene strips in the longitudinal grooves act as non-return valves.

### CONTACT DETAILS

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Logistics	
Shelf life:	12 months if stored according to manufacturer's instructions in unopened container.
Storage conditions:	Store in original sealed containers and at temperatures between 5°C and 30°C. Store under cover, off the ground, out of direct sunlight and protect from extremes of temperature. Protect the materials from all sources of moisture. Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging.
Handling and transportation:	Refer to MasterInject 900 Safety Data Sheet
Disposal:	Refer to MasterInject 900 Safety Data Sheet

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## Health and Safety

\*For full information on Health and Safety matters regarding this product the relevant Health and Safety Data Sheet should be consulted.

The following general comments apply to all products.

As with all chemical products, care should be taken during use and storage to avoid contact with eyes, mouth, skin and foodstuffs, (which may also be tainted with vapour until the product is fully cured and dried). Treat splashes to eyes and skin immediately. If accidentally ingested, seek medical attention. Keep away from children and animals. Reseal containers after use.

## Spillage

Chemical products can cause damage; clean spillage immediately.

## DISCLAIMER

"Master Builders Solutions UK Ltd" (the Company) endeavours to ensure that advice and information given in Product Data Sheets, Method Statements and Material Safety Data Sheets (all known as Product Literature) is accurate and correct. However, the Company has no control over the selection of its products for particular applications. It is important that any prospective customer, user or specifier, satisfies him/her-self that the product is suitable for the specific application. In this process, due regard should be taken of the nature and composition of the background/base and the ambient conditions both at the time of laying/applying/installing the material and when the completed work is to be brought into use.

Accordingly, no liability will be accepted by the Company for the selection, by others, of a product, which is inappropriate to a particular application.

Products are sold subject to the Company's standard conditions of sale and all customers, users and specifiers, should ensure that they examine the Company's latest Product Literature.