

MasterSeal® 909

Re-injectable hose for construction and cold joints in concrete

DESCRIPTION

MasterSeal 909 is a blue flexible PVC hose which comprises a solid core and lateral openings covered by neoprene strips, all banded by an open webbed nylon mesh.

RECOMMENDED USES

MasterSeal 909 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. **MasterSeal 909** is particularly useful for the structures expected to have movement during their service. **MasterSeal 909** 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

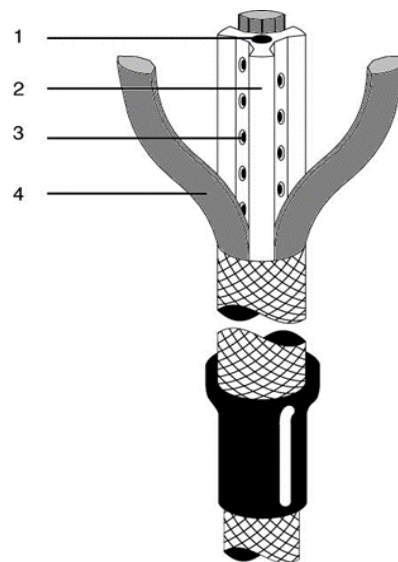
FEATURES AND BENEFITS

- **Re-injectable Hose** - Arrests leakage caused subsequently by settlement or structural movement at the construction joint.
- **Eliminates costly design, welding and installation of waterbar** – Time saving and economical
- **Water cannot penetrate treated joint and rebar** – Eliminates risk of reinforcement corrosion
- **Fast & easy installation** – Eliminates risk of installation failures.
- **Joints can be tested for water tightness before backfilling** – Assured quality control
- **Neoprene strips as Non-return valves** – Ensures

PROPERTIES

MasterSeal 909 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. **MasterSeal 909** re-injectable hose is unaffected by alkalis, sewerage, most water solutions of organic chemicals, aliphatic hydrocarbons (fuel), mineral oils, acids and alcohols.

MasterSeal 909 has an overall outside diameter of 19mm with a solid hose core to resist concrete pressures. The solid hose core has longitudinal injection hole of diameter is 6mm with discharge openings diameter 3mm staggered by 10mm. Refer to the following diagram for better understanding.



1. Injection Hole of diameter 6mm
2. Solid hose core for resisting concrete pressure
3. Discharge openings of 3mm staggered at 10mm
4. Neoprene strips acting as Non-return valves

APPLICATION

Preparatory Work

All **MasterSeal 909** 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 **MasterSeal 909** 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.

Installation

The **MasterSeal 909** re-injectable hose consists of the injection hose and the vent ends. The vent ends are specially fabricated PVC hoses to withstand injection pressure, in green and transparent colors. The vent ends allow the fixing of injection equipment at a later stage and generally project 20 cms out of the concrete surface.

MasterSeal[®] 909

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 **MasterSeal 909** re-injectable hose is installed in lengths up to a maximum length of 12m. For up to 600 mm wall thickness the **MasterSeal 909** hose should be installed at the center of the wall thickness.

The hose is clamped into position with **MasterSeal 909** clips spaced about 200-250mm 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.

INJECTION

Installation, injection, reinjection, and selection of materials should be entrusted to an experienced and certified MasterSeal 909 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 MasterSeal 909 hose with MasterSeal 901 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. Pressurize the **MasterSeal 909** 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) or 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 **MasterSeal 909** hose, this is to ensure even pressure distribution over the whole length. Within the gel time, pressurize 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.

PACKAGING

MasterSeal 909 is supplied as two separate kits comprising the following:

Kit 1	100m Long Re-injectable hose
Kit 2	Accessories
	1 20m Long Green vent Hose
	2 20m Long Transparent vent hose
	3 2m Long Shrink on sleeve
	4 2m Long Connecting Nozzle
	5 30 nos. Closure plugs
	6 500 nos. Anchor clips

PRECAUTIONS

For the full health and safety hazard information and how to safely handle and use this product, please make sure that you obtain a copy of the Master Builders Solutions Material Safety Data Sheet (MSDS) from our office or our website.

STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this Master Builders Solutions publication are based on the present state of our best scientific and practical knowledge. As the information herein is of a general nature, no assumption can be made as to a product's suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness either expressed or implied is given other than those required by law. The user is responsible for checking the suitability of products for their intended use.

NOTE

Field service where provided does not constitute supervisory responsibility. Suggestions made by Master Builders Solutions either orally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they, and not Master Builders Solutions, are responsible for carrying out procedures appropriate to a specific application.

MB Solutions Singapore Pte Ltd

1 Harbourfront Avenue #07-07/08
 Keppel Bay Tower, Singapore 098632
 Tel : +65 6232 4888