

# ECMA MULTI-INJECT

## Re-injectable Grouting Hose for Construction Joints

### Description

ECMA MULTI-INJECT Grouting Tube is specially designed perforated, flexible solid PVC Injection tube systems which can be installed in concrete construction joints to seal the joints water-tight and also to seal any cracks or voids in the joint areas. It's unique uni-directional valve design allows hose to be re-injected multiple times, if necessary. This grouting hose offers a complete maintenance program if leakage appears in the future. If water test performed and voids in the joint area are indicated the voids should be filled with injecting material like Acrylic or PU Gel grouting compounds (generally termed as PU Gels or Acrylate gel) depending on site requirement.

### Applications & Advantages

- Water-tight sealing of Construction Joints and Cracks in Basements, Tunnels, Water Retaining or Water excluding UG concrete structures
- Multi use system - can be used many times to repair leaks during life cycle of the structure using Acrylate or PU Gels
- No further drilling necessary fix nozzles for injection grouting
- Easy & secure installation, very cost effective
- Can be used in complex and difficult situations
- Ideal back-up in combination with swellable water bars in critical situations

### Technical Properties

Inner Hose	Type Color Elongation % Hardness Shor A	Solid Core, Perforated PVC Tube Red >250% 80 ± 5
Covering Profile	Type Color Elongation % Hardness Shor A	Compressible, Neoprene Strips Black >300% 20 ± 3
Mesh		Polyester Threads
Hose Diameter	Outer Inner	19 mm 06 mm
Shelf Life		36 months
Packaging: Supplied in a Combi-pack box containing: <ul style="list-style-type: none"> <li>• 100 RMT ECMA MULTI-INJECT TUBE</li> <li>• 10 RMT Clear PVC Connection Tube</li> <li>• Accessories (1 m connecting pipe, 2 m heat shrink sleeve, × 20 closure plugs, 1 roll of tape, × 400 fixing clips)</li> </ul>		

## Installation Instructions

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**Designing Principle:** This INJECTION HOSE SYSEM does not seal the joint on its own. The injection tube is a delivery channel for the injection material to effectively seal the joints. It is necessary to use a suitable pressure pump and low viscous injection material to ensure water tightness. It is advisable to use only recommended Injection material. The construction joint is completely filled with the injection material, across the full width of the void, thereby preventing any water ingress through the joint into the structure. This acts as a unidirectional valve system.

### Installation

Cut the ECMA Multi-Inject Hose (not more than 12 m) and PVC tubes to the desired lengths and fix connection tubes with glue to ensure secure connection. Install the hose and heat shrink the sealing sleeve using a hot air machine and close the vent end with closure plugs. The connection hose is ready for installation.

Drill holes and install the ECMA Multi-Inject Hose at Construction joints before next pour of concrete, using plastic clips supplied along with hose. The Hose ends are terminated in the junction boxes installed at suitable accessible locations.

The injection hose system is cast into concrete and is ready for injection when the concrete reaches its final strength.

**Injection:** When injected with recommended low viscosity injection material such as PU Gels or Acrylate Gels, under pressure the neoprene strips compress and allow the injection material to flow out of the hose from the slits around the hose. This enables uniform discharge of the material over the whole length of the hose with delivery to all the potential voids, gaps or cracks, etc. and thereby ensures effective sealing of the leakages at construction joint.

**Cleaning the Hose:** Once grouting is completed, it is necessary to immediately clean the grouting hose. Hoses can be easily flushed clean with water which is sucked by vacuum pressure. This negative pressure also reseats the neoprene strips, preventing any injected material from being drawn back into the hose. After cleaning, ends of the tubes are plugged and the system is ready for use in future as and when required.

### Safety Precautions

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Avoid skin and eye contact and inhalation of vapors during injection. Gloves, goggles and masks should be worn during application. If the product comes into contact with the skin, should be washed thoroughly with with luke warm water and soap. In case of eye contact, should be washed with clean water and medical advice sought immediately.

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