# ADCOR® Hydrophilic Waterstop 550 T-MI

Double protection system for construction joints using 2-in-1 pre-applied, post injectable hydrophilic waterstop for saline and brackish water ground condition

## Product Description

ADCOR®550 T-MI is a combined active and passive waterstop system with built in redundancy for the secure sealing of concrete construction joints subject to hydrostatic pressure. It comprises an outer hydrophilic sleeve activated in contact with water (active) for sealing the joint, and a reinforced injection tube for remedial treatment by resin injection (passive).

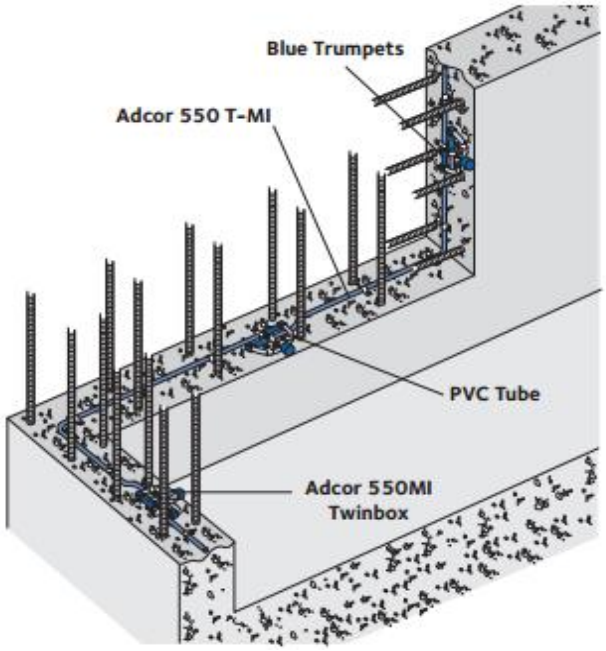
With the speed and simplicity of a single installation ADCOR®550 T-MI provides the advantages of both a pre-applied barrier and a post injected waterstop system:

1. The outer hydrophilic sleeve gives the first protection level, it has been designed to swell with saline and brackish water ground condition,
2. The reinforced injection tube for remedial treatment by fast one component resin injection gives the reassurance of a second protection level.

Unlike standard injection systems that require resin injection in every case to be effective, ADCOR®550 T-MI has built in waterstop protection from the special hydrophilic element, and only needs injection in extreme cases of leakage.

ADCOR®550 T-MI hydrophilic injection hose has advantages over other waterstop systems with:

- A hydrophilic outer sleeve which expands on contact with water and seals small cracks and voids in the construction joints
- A filtration membrane outside the reinforced inner tube which prevents siltation of the injection hose and swelling of the external membrane.
- A steel wire reinforced inner tube which maintains its shape and does not collapse even under the extremes of external pressure.




Details shown are typical illustrations only and not working drawings. For assistance with working drawings and additional technical advice please contact GCP Technical Services.

## Advantages

### Hydrophilic waterstop

- Volumetric expansion over 140% in 8% saline water
- Easy installation
- Non-polluting to ground water
- Retains cohesive strength at both original and expanded volume
- No need for protective steel mesh
- Conformable – can be installed onto a variety of irregular substrates
- Reinforced inner tube prevents damage to resin path
- Resists at least 5 bar (50 m) hydrostatic pressure.

### Injection System

- Complete contact of the outer sleeve with the concrete
- Simple overlap jointing on site. Can be easily jointed to PVC Waterstops at movement joints
- Low pressure injection system therefore no need for electrical injection equipment
- Injection socket inlets can be installed and easily accessed
- Mechanical hand pump available for injection
- Minimal interruption to occupancy should the need for injection arise.

## Applications

- Construction joints for in-situ concrete structures
- Casting new concrete against existing concrete
- Floor slabs cast against diaphragm retaining walls, steel sheet piles and secant piled walls
- Joints between floor slabs and pile caps
- Remedial 'breaking out' of concrete.

| SUPPLY | |
|---|---|
| ADCOR® 550 T-MI KIT | Weight 14.4 kg |
| Each Box Contains: | |
| ADCOR® 550 T-MI | 8 x 5 m rolls (40 m) |
| Reinforced PVC tube* | 4 metres + 16 caps* |
| Blue Trumpets* | 16 pieces |
| ADCOR® 550MI clips* | 175 pieces |
| PVC tube clips | 16 pieces |
| Accessories | |
| ADCOR® 550MI Twinbox | 5 units |
| ADCOR® 550MI Formholder | 50 units |
| ADCOR® Mastic | 310 ml cartridge (12 per box) |
| Injection Material** | HA Flex LV AF resin & HA Flex Cat AF catalyst |

**can also be ordered separately*

***for more detail refer to separate technical datasheet*

| PHYSICAL PROPERTIES | |
|---|---|
| Property of the Outer Skin | Typical Results |
| Volumetric expansion in 8% saline water | >140% |
| Density | Approx. 1.46 kg/dm³ |
| Expansion pressure under complete enclosure | enclosure > 0.70 N/mm² |
| Resistance against Hydrostatic Pressure | up to 5 bar (50 m) |
| Installation temperatures | -15˚C to 60˚C |
| Minimum concrete cover | 70 mm |
| Property of the injection tube | |
| Consumption during injection | Minimum 190 g/m to fill tube |
| Steel wire tensile strength | Approx. 1800 N/mm² |

*All test results shown in this data sheet are determined under laboratory conditions and with the product sample taken directly from stock in its original packing without any alteration or modification of its component parts.*

## Installation

- ADCOR® 550 T-MI should be installed on a smooth and dust-free surface free of loose material and laitance.
- Keep ADCOR® 550 T MI dry prior to pouring concrete.
- ADCOR® 550 T-MI must be in direct contact with the construction joint substrate over its full length.
- The hoses are positioned between the reinforcement during second phase construction.
- Note the ADCOR® 550MI Twinbox or Formholder positions and connected inlet and outlets for location and access after concreting.
- Detailed installation instructions are available from the local GCP Representative.

## Injection

- Injection resins approved by GCP are injected through the injection ports.
- Any injection required should be carried out after curing and initial shrinkage of the concrete.
- The injection materials are resins with varying viscosities, which remain elastic after polymerisation, are not corrosive to reinforcement and are environmentally friendly.
- A specialist applicator should be used for all system injection.

## Dimensions

| | |
|---|---|
| Outer diameter of ADCOR® 550 T-MI: | approx. 16 mm |
| Diameter of the spiral: | approx. 8 mm |
| Thickness of hydrophilic skin: | approx. 4 mm |

## Consumption

Quantities are dependent on the lengths of the construction joints and the quantity of overlaps. The consumption of injectable resin is dependent on the frequency and the size of hollow voids around the ADCOR®550 T-MI.

## Storage

ADCOR®550 T-MI should be stored under cover, clear of the ground. Protect the materials from all sources of moisture and frost. Shelf life is unlimited if correctly stored.

## Accessories

### ADCOR® Mastic

- Mastic for levelling the surface
- Packaging: 310 ml cartridge (12 per box)

To be ordered separately.

## Health and Safety

Read the product label and Safety Data Sheets before use. Users must comply with all risk and safety phrases. For health and safety questions on this product please contact GCP.



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