Adcor® 550MI Resin

One component, flexible polyurethane injection grout for sealing water leaks in construction joints.

Description

One component, medium to low viscosity, hydrophobic, aqua-reactive, flexible polyurethane injection grout for filling and repairing joints and water leaks in concrete construction.
Adcor® 550MI Resin is a yellow non-flammable liquid which on exposure to water expands and cures to a tough, flexible, close-cell polyurethane foam, resistant to corrosive environments.

Principal Applications

Adcor® 550MI Resin:

- Is designed for use with Adcor 550MI injectable waterstop for sealing water leaks in construction joints.
- Can be used to fill cracks and voids up to 3 mm wide.

Application is only carried out by Grace approved applicators. Contact Grace for further details.

Application

Before application consult the Technical Data Sheet and MSDS. Always shake the Adcor® 550MI Catalyst well before use.

Surface and Substrate Preparation

- Remove any contaminants and debris at the joint. Active leaking cracks greater than 3 mm need to be sealed with an approved method.
- Confirm the inlet and outlet for each Adcor 550MI run.
- Flush the crack with water before injecting the resin. This will prime the crack and activate the resin when injected.

Resin and Equipment Preparation

- Prepare the resin with the predetermined amount of catalyst. Shake Adcor 550MI Catalyst well before use. No reaction with the resin will occur until the resin comes into contact with water.
- Keep the resin protected from water, since this will trigger a reaction in the container used and might cause the resin to harden or foam prematurely within the injection equipment.
- It is highly recommended to use separate pumps for the water and the resin injection to prevent cross contamination and blockages.
- We recommend the use of pneumatically or an electrically driven 1-component pumping system.
- The pumps should be thoroughly primed with a suitable washing agent to lubricate and dry the system before injection.

Injection

- Connect the Brass Injection Packers to the inlet and outlet of the waterstop run to be injected.
- Start injecting at the lowest pressure setting of the pump. Slowly increase the pressure until the resin begins to flow. Pressures may vary from 14 to 200 bar depending on the voids or cracks and the general condition of the concrete.
- Some leakage through the joint crack may indicate the extent of the resin injection. Large leaks may require more than one injection.
- During the injection process water may flow from the joint, followed by foaming resin and then pure resin. If this happens injection should stop.
- After completing each injection phase the Adcor 550MI hose system should be flushed with water, drained and plastic plugs placed at the ends of the inlet and outlet hoses.
- Move to the next Adcor 550MI run and repeat the process.
- After injecting a few waterstop sections return to earlier injected runs and repeat the process until the leakages have stopped.
- When the injection is finished, clean all tools and equipment which have been in contact with the resin with a suitable washing agent. This should be done within 30 minutes. Do not use solvents or other

Reactivity Table

Reactivity	Adcor 550MI Catalyst	Approx. polymerisation time of Adcor 550MI Resin
At 10˚C	1%	7min 50s
	3%	3min 50s
	5%	2min 25s
At 20˚C	1%	6min
	3%	3min
	5%	1min 55s
At 30˚C	1%	5min 50s
	3%	2min 30s
	5%	1min 45s

Advantages

- Non-flammable, solvent free.
- One component.
- Reduced curing times with catalyst.
- Resistant to most organic solvent, mild acids, alkalis and micro-organisms.
- Forms a flexible gasket or flexible plug in the joint or crack.

Supply

Adcor® 550MI Resin	5 kg drum
Storage	In original containers, between 5˚C and 30˚C
Adcor® 550MI Catalyst	250 ml bottle
Accessories	
Brass Injection Packers	50 pieces per box

Equipment by others: Injection pump

Physical Properties

Property	Typical Results	Test Method
Adcor 550MI Resin		
Uncured		
Solids	100%	ASTM D-1010
Viscocity at 25˚C	450 - 850 mPa.s	ASTM D-1638
Density	1.05 - 1.10 kg/dm³	ASTM D-1638
Flash Point	>132˚C	ASTM D-93
Cured		
Density	1 kg/dm³	ASTM D-3574
Tensile strength	1.2 N/mm²	ASTM C-190-1963
Elongation	220%	
Adcor 550MI Catalyst		
Viscocity at 25˚C	10 - 20 mPa.s	ASTM D-1638
Density	1.015 - 1.025 kg/dm³	ASTM D-1638
Flash Point	COC 170˚C	

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.

cleaning products since they give less positive results and can create hazardous situations. Products should be disposed of according to local legislation.

Consumption

Should be estimated by the operator and is dependent on extent of void or cracks which need to be injected.

Storage

Adcor 550MI Resin is sensitive to moisture and should be stored in original containers in a dry area. Storage temperature must be between 5°C and 30°C. Once the packaging has been opened, the useful life of the material is greatly reduced and should be used as soon as possible. Shelf life: 2 years.

Accessories

Adcor 550MI Resin is applied only by Grace approved specialist applicators. Injection can be carried out for small quantities using a hand operated pump, suitable for injection at pressures up to 100 bar, of 1-component polyurethane resins or pre-mixed 2-component epoxy resins of low to medium viscocity. Electrical airless diaphragm pumps are recommended for injection of high volume and high pressure applications.
Brass Injection Packers, to be used with the Adcor 550MI Twinbox, are supplied separately.

Health and Safety

Adcor® 550MI Resin is classified as harmful.
Adcor® 550MI Catalyst is classified as an irritant.
Always wear protective clothing and gloves.
Read the product label and Material Safety Data Sheet (MSDS) before use for general recommendations. In case of spills and accidents, refer to the MSDS of the product or when in doubt contact the Grace Technical Service department. Users must comply with all risk and safety phrases. MSDS's can be obtained from Grace Construction Products or from our website at www.graceconstruction.com.

www.graceconstruction.com

Grace Construction Products Limited Ajax Avenue Slough Berkshire SL1 4BH United Kingdom
Tel +44 (0)1753 692929 Fax +44 (0)1753 691623

GRACE