

MC-Injekt 2700 UW

Rigid Sealing Injection Resin

Product Properties

- Low-viscosity duromer resin based on polyurethane
- Short reaction time
- Ductile stability when cured
- Very high strength in combination with the additive MC-Additiv TX
- Limited foaming when reactive resin is mixed with water
- In combination with MC-Additiv TX immediate and high increase of viscosity and foam-free reaction
- Fulfills KTW-requirements of test group B (recipients)
- Fulfills requirements of the DIBt bulletin "Evaluation and effects of construction products on soil and ground water" (11/2000)

Areas of Application

- Rigid sealing and filling of cracks, joints and cavities in underground engineering, water- and tunnel structures, mining and general civil engineering
- Injection under water, carried out by divers (in combination with MC-Additiv TX)
- Waterproofing injection against highly pressurised water, especially in combination with MC-Additiv TX or MC-KAT 27
- Sealing of sheet pilings, diaphragm walls, installations, dams etc.
- Strengthening of subsoil, excavations, tunnels, dams etc.
- REACh-assessed exposure scenarios: long-term water-contact, periodical inhalation, application

Application

Preparation

Before injection, the structure's cracks and voids must be inspected. For the right choice of the injection system information on pressure and quantity of the water leakages have to be given. High pressure injection packers with sufficient diameter have to be used e. g. MC-Stahlpacker 18/550.

Mixing

MC-Injekt 2700 UW consists of two components, A (base) and B (hardener). Both components are mixed in the mixing head of a two-component injection pump, using suitable static mixers (e. g. 20 inline static mixer in mixing tube of MC-I 700)

Injection

The injection must be carried out with a two component injection pump that produces a sufficient amount of pressure and output e. g. MC-I 700.

In contact or mixed with water MC-Injekt 2700 UW foams in a limited way and produces a hard, closed-cell foam.

MC-Stahlpacker 18/300 (MC-Steel Packer 18/300 are recommended for injection.

Work with MC-Injekt 2700 UW must be stopped if the temperature of the structure drops below 6 °C.

Open packs must be used within 24 hours.

Acceleration of reactivity and additives

The reaction time and the characteristics of the reacting or reacted product can be modified via accelerators and additives: MC-KAT 27 accelerates the reaction (addition of up to 1 %). MC-Additiv TX (addition of up to 6 %) accelerates and thixotropes the reactive resin that then, unaffected from water, reacts foam-free. All added quantities refer to component A and are only to be mixed into component A.

Machine Cleaning

In case of intervals longer than the resin's pot life, the injection pump should be flushed thoroughly with MC-Verdünnung PU (MC-Thinner PU). Partially and completely cured material can only be removed mechanically.



Technical Data for MC-Injekt 2700 UW

Characteristic	Unit	Value*	Comments
Mixing ratio	p.b.v.	1 : 1	component A : component B
Density	kg/cm ³	1.13	
Viscosity	mPa·s	approx. 230	DIN EN ISO 3219
Compressive strength (basic resin without addition of water)	MPa	approx. 60	DIN EN 19671
Compressive strength (basic resin added with MC-Additiv TX)	MPa	approx. 90	DIN EN 19671
Shore-A-hardness		approx. 90	ISO 868
Increase in volume (basic resin with addition of approx. 5 % water)		1 - 10 times	depending on counter pressure
Application time	seconds	approx. 38 - 45	
Application temperature	°C	+ 6 - + 35	air, substrate and material temperature

* All technical values relate to 20 °C and 50 % relative humidity.

Product Characteristics for MC-Injekt 2700 UW

Cleaning agent	MC-Verdünnung PU (MC-Thinner PU) Water or water-based cleaning agents must not be used under any circumstances!
Colour	brown
Delivery	MC-Injekt 2700 UW in canisters of 20 l for each component MC-KAT 27 in a box of five 400 ml per box bottles MC-Additiv TX in a box of five 400 ml per box bottles and 5 l canister
Storage	Can be stored in original sealed packages at temperatures between 10 °C and 25 °C in dry conditions for at least 1 year. Protect from frost! The same requirements are valid for transport.
Disposal	Packs must be emptied completely.

Safety Advice

Please take notice of the safety information and advice given on the packaging labels and safety information sheets. GISCODE: PU40

Note: The information on this data sheet is based on our experiences and correct to the best of our knowledge. It is, however, not binding. It has to be adjusted to the individual structure, application purpose and especially to local conditions. Our data refers to the accepted engineering rules, which have to be observed during application. This provided we are liable for the correctness of this data within the scope of our terms and conditions of sale-delivery-and-service. Recommendations of our employees which differ from the data contained in our information sheets are only binding if given in written form. The accepted engineering rules must be observed at all times.

Edition 02/12. Some technical changes have been made to this print medium. Older editions are invalid and may not be used anymore. If a technically revised new edition is issued, this edition becomes invalid.