



# MC-Injekt 3000 HPS

Swelling-elastic sealing injection resin for reinforced concrete, concrete, masonry, subsoil and structure joints

## Product Properties

- Particularly low-viscosity polymer reactive injection resin
- Very good injectability
- Variable reactivity
- Especially low application temperature
- High elasticity and high swelling capacity
- Waterproof against high water pressure
- Performance conformity for injection of concrete according to EN 1504-5: CE U(D2) W(1) (1/2/3/4) (1/40)
- Drinking water test certificate according to UBA and DVGW 270
- General building inspectorate approval for injection into soil and groundwater of the DIBt
- REACH-assessed exposure scenarios: long-term water-contact (crack), periodical inhalation, application

## Areas of Application

- Swellable-elastic sealing filling of cracks and cavities in permanently damp, water-stressed structures in building construction, underground engineering, hydraulic engineering and general civil engineering
- Injection work on concrete according to EN 1504-5
- Injection of drinking water structures
- Injection of masonry against capillary moisture
- Injection of injection hoses
- Subsequent sealing of structural joints
- Subsoil sealing and subsoil consolidation (membrane injection)

## Application

### Product description

MC-Injekt 3000 HPS is a reaction resin for the injection of reinforced concrete, concrete, masonry and subsoil. With MC-Injekt 3000 HPS, structures including the adjoining subsoil can be permanently and swellable-elastically sealed against water and pollutants in all moisture conditions. For durable effectiveness, the injected structure must be permanently moist, at least on one side grounded.

### Preparative measures

Prior to application, an investigation of the area to be injected must be carried out according to the state of the art and the rules of the technology, including a chemical examination, and an execution plan must be defined.

### Mixing of components

MC-Injekt 3000 HPS is a multi-component injection system. The components A (base) and B (initiator liquid) are mixed from partial components.

Component A is mixed from subcomponents A1

and A2. Component A2 is poured into the canister of component A1 and thoroughly stirred in with a wooden paddle. Component B2 is dissolved in B1 and mixed with a wooden paddle. The concentration of the solution determines the reaction time. Reaction times are temperature dependent.

Dosage B2 in B1 (for 123 kg barrels)	Reaction time	
	at 20 °C	at 10 °C
0.2 % (0.246 kg)	10 min	32 min
0.5 % (0.615 kg)	7 min	14 min
1.0 % (1.230 kg)	4 min 40 s	9 min 27 s
2,0 % (2.460 kg)	3 min 30 s	6 min 05 s
4.0 % (4.920 kg)	3 min 30 s	4 min 15 s

For injection into soil, water can be used instead of the polymer dispersion. The reaction times are then about 10 % shorter.

The reaction time can be extended with MC Retarder GL. Adding 4 % MC-Injekt Retarder GL gives approximately four times the reaction time.



## Application

### Injection

Injection is carried out using a 2-component injection pump with sufficient capacity, e.g. MC-I 700. The mixing distance in the mixing head of the pump must be at least 20 cm for spiral mixers and at least 10 cm for grid mixers. Injection packers should be chosen in accordance to the damaged

area (e.g. MC-Injektionspacker DS 14).

### Cleaning of equipment

Within the pot life all tools and equipment can be cleaned with water. Partially or completely cured material can only be removed mechanically.



## Technical Data for MC-Injekt 3000 HPS

Characteristic	Unit	Value*	Comment
Mixing ratio	p.b.v.	1 : 1	A : B
	kg	119 : 6	comp. A1 : comp. A2 (drum)
	kg	23.8 : 1.19	comp. A1 : comp. A2 (canister)
	kg	123 : 0.5	comp. B1 : comp. B2 (drum), variable
	kg	24.6 : 0.1	comp. B1 : comp. B2 (canister), variable
Density			
Mixed with comp. B1	kg/dm <sup>3</sup>	1.04	DIN 53 479
Mixture with water	kg/dm <sup>3</sup>	1.02	DIN 53 479
Viscosity	mPa·s	approx. 15	DIN EN ISO 3219
Application time			
Mixture with comp. B1	minutes	approx. 3 to 10	ASTM D7/487
Mixture with water	minutes	approx. 2:30 to 8:36	ASTM D7/487
Application temperature	°C	+ 1 to + 40	Substrate- and structure temperature
Swelling ratio	%	100	water storage at 20 °C
Elasticity	%	270	DIN 52 455
Freezing point			
Mixture with comp. B1	°C	- 18.6	DIN EN 11357-3
Mixture with water	°C	- 17.5	DIN EN 11357-3

\* All technical values relate to + 21 ± 2 °C and 50 % relative humidity.

## Product Characteristics for MC-Injekt 3000 HPS

Colour	white
Delivery	component A1 23.8 kg canister / 119 kg drum component A2 1.19 kg canister / 6 kg canister component B1 24.6 kg canister / 120.6 kg drum component B2 box with 4 x 0.5 kg packs
Cleaning agent	Within the pot life all tools and equipment can be cleaned with water. Partially or completely cured material can only be removed mechanically.
Storage	Can be stored in original sealed packages, protected from UV-exposure, at temperatures between + 1 °C and + 30 °C in dry conditions for at least 1 year. 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.

**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.

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