MC-Injekt 3000 HPS

Swelling, flexible, waterproofing acrylate gel sealant for injection in concrete, masonry and foundation soil

BE SURE. BUILD SURE.

PRODUCT PROPERTIES

- Low-viscosity acrylic-based hydrogel
- Very good injectability
- Readily controllable injection path propagation thanks to controllable reaction time
- Very low application temperature
- Reliable sealing/waterproofing due to high elasticity and good swelling capacity
- Durably water-impermeable in moist media
- CE conformity according to EN 1504-5: CE U(S2) W(2/3/4) (1/40)
- Corresponds to fire class B2 according to DIN 4102 in the injection medium
- General building authority approval issued by DIBt for injection into soil and groundwater
- Fulfils the UBA (German environmental agency) guidelines for sealants in contact with potable water
- High chemical resistance especially in highly alkaline environments
- REACH exposure: water contact permanent, inhalation periodic, processing and application
- Environmental Product Declaration EPD

AREAS OF APPLICATION

- Swelling flexible filling sealant for cracks, construction joints, expansion joints and cavities in permanently damp concrete and masonry
- Subsequent vertical sealing of masonry
- Subsequent formation of a horizontal barrier/DPC in masonry
- Injection of waterproofing membrane into interstitial spaces between buildings
- Injection of waterproofing membrane into foundation soil (curtain injection)
- Injection of construction joints via injection tubes/hoses

APPLICATION ADVICE

Preparatory measures: Prior to injection, an investigation of the structure and of any leaks must be carried out according to the state of the art and the rules of technology, and an injection concept must be planned. Packers must be set before injection. A trial injection is recommended.

Mixing the components: Components A and B of MC-Injekt 3000 HPS are prepared from their respective subcomponents in the specified mixing ratio. Component A is mixed from subcomponents A1 and A2. To do this, pour component A2 into the container of component A1 and stir energetically with a wooden paddle. Component B2 is dissolved in component B1 (or in water) and mixed with a wooden paddle (addition rate 0.2 to 4 %). The reaction times of MC-Injekt 3000 HPS depend on the volume of component B2 added to component B1 (or water). The standard mixture is prepared with B1. This results in a high solids, high performance hydrogel. Mixing with water instead of B1 results in a more dilute, softer hydrogel.

Mixing of the components A and B thus prepared takes place during injection: The components are mixed as they pass through the mixing head of the MC-I 710 injection pump (mixing distance ≥ 10 cm inline static mixer).

Reaction time with addition of component B2 in 24.6 kg or 123 kg of component B1

	Container unit		20 °C		10 °C	
%	24.6 kg	123 kg	B1	Water	B1	Water
0.2 %	0.049 kg	0.246 kg	10'	8'36"	32'	17'
0.5 %	0.123 kg	0.615 kg	7'	5'27'	14'	11'
1 %	0.246 kg	1.230 kg	4'40"	3'48"	9'27"	6'30"
2 %	0.492 kg	2.460 kg	3'30"	3'10"	6'05"	5'15"
4 %	0.984 kg	4.920 kg	3'	2'30"	4'15"	3'45"

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APPLICATION ADVICE

Injection: Injection is performed with the two components being mixed as they are dispensed by the MC-I 710 injection pump.

MC-Hammer Packer LP 18 or MC-Hammer Packer LP 12 packers are recommended for injection into building components.
MC-Bore Packer LS 18 packers or injection lances are recommended for injection into foundation soil.

Application work should cease once component/subsoil temperatures fall below 1 °C.

Ensure compliance with the information given in the specifications and the Safety Data Sheets.

Equipment cleaning: Within the working time of the resin, all tools can be cleaned with water or air. Material that has reacted or set will need to be removed mechanically.

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TECHNICAL VALUES & PRODUCT CHARACTERISTICS

Characteristic	Unit	Value	Comments
Mixing ratio	parts by volume	1 : 1	comp. A : comp. B
	mass fractions		
Canister		23.8 : 1.19	comp. A1 : comp. A2
Drum		119 : 6	comp. A1 : comp. A2
Canister (variable)		24.6 : 0.1	comp. B1 : comp. B2
Drum (variable)		123 : 0.5	comp. B1 : comp. B2
Density	kg/dm³		DIN 53479
		approx. 1.04	mixture with B1
		approx. 1.02	mixture with water
		approx. 1.06	component A1
		approx. 0.933	component A2
		approx. 1.04	component B1
		approx. 1.2 - 1.5	component B2
Viscosity	mPa·s	approx. 25	EN ISO 3219 (with comp. B1)
		approx. 5	EN ISO 3219 (with water)
Working time		2' 30" - 10'	at 20 °C
		3' 45" - 32'	at 10° C
Application conditions	°C	1 - 40	component and subsoil temperature
Strain	%	approx. 270	EN ISO 527 (with comp. B1)
		approx. 70	EN ISO 527 (with water)
Swelling dimension	%		linear swell
		approx. 92	water storage at 20 °C (with comp. B1)
		approx. 120	water storage at 20 °C (with water)
Ultimate elongation	%	approx. 200	DIN 52 455-1

All technical values are laboratory results determined at 21°C ±2°C and 50% relative humidity.

Colour	blue
Equipment cleaning agent	water
Delivery form	Component A1 23.8 kg canister / 119 kg drum Component A2 1.19 kg canister / 6 kg canister Component B1 24.6 kg canister / 123 kg drum Component B2 carton of 4 x 0.5 kg containers
Storage	Can be stored in original sealed packages at temperatures between 1°C and 25°C in dry conditions for at least 12 months.
Packaging disposal	Make sure single-use containers are completely empty.

Safety instructions
Please note the safety information and advice given on the packaging labels and safety data sheets.

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