

MC-Injekt PowerSeal G

One-component, water-stopping and elastically sealing expansion resin for subsoil, concrete, masonry



PRODUCT PROPERTIES

- One-component, water-reactive polyurethane-based injection resin
- Good injectability
- Unlimited working time
- Strong volume increase on contact with water
- Self-injection effect - Water Boost Technology
- Immediate and permanent waterproofing success
- Highly elastic with dense pore structure
- CE conformity according to EN 1504-5: U (D1) W (3) (2/3/4) (5/40)
- Groundwater-hygienically harmless according to general building authority approval for injection into soil and groundwater
- REACH exposure: Water contact permanent, inhalation periodic, processing

AREAS OF APPLICATION

- Highly elastic sealing injection of cracks, joints and cavities in permanently damp concrete and masonry structures, optimal from a crack width of >0.3 mm.
- Water-stopping and permanently sealing injection against flowing and pressing water
- Sealing of rock, subsoil, excavations and structures in tunnelling and foundation engineering
- Sealing of interstices and joints over a wide area
- Sealing of masonry by injection
- Sealing of shaft structures and canals

APPLICATION ADVICE

Preparatory measures: Prior to injection, an investigation of the structure, subsoil or rock or of the leaks must be carried out in accordance with the state and rules of the art. Packers must be set for the injection. The areas to be injected must contain water. Dry structures require the pre-injection of water. A trial injection is recommended.

Injection: MC-Injekt PowerSeal®G is injected as a single component directly into wet or water-filled building components or building ground. The working time is unlimited without water contact. Storage containers and open resin containers must be protected against water ingress during processing. Humidity can cause a skin to form on the surface of the resin. This protects the resin underneath from further reaction with moisture. Solid components must not be sucked into the pump.

MC-Injekt PowerSeal®G reacts quickly and expansively with water. MC-Injekt PowerSeal®G develops its highest performance with two-component injection with water in a mixing ratio of approx. 1:1 parts by volume. The mixing ratio does not have to be kept exactly. MC-Injekt PowerSeal®G can be injected as a single component into water-bearing cracks. The resin must be able to mix well with the water. The expansion drives the resin deep into the components in addition to the injection pressure. Sealing takes place immediately in a single operation. Subsequent injection is not necessary.

The resin body is highly elastic, closed-cell, impermeable to water and mechanically resilient.

The injection is carried out with the injection pump MC-I 520. Reactive resin in open containers must be protected from water ingress.

The MC-Hammer Packer LP 18 or the MC-Bore Packer LS 18 is recommended for injection.

The packers can be removed quickly after injection if water is also pressed into the bore channel and the resin reacts as a result.

At component temperatures below + 5 °C, processing must be discontinued. For detailed information, please refer to the specifications for MC-Injekt PowerSeal®G.

Viscosity at different temperatures:

10 °C	15 °C	20 °C	23 °C	25 °C	30 °C
690 mPa*s	505 mPa*s	400 mPa*s	340 mPa*s	285 mPa*s	

Reaction times (approx. s) at different temperatures and water mixtures (expansion start / expansion end). The best technical properties are achieved when MC-Injekt PowerSeal G is mixed with 100% water.

Water mixture	10 °C	15 °C	20 °C	25 °C	30 °C
5 %	60 / 300	50 / 270	45 / 250	38 / 220	30 / 210
10 %	45 / 240	40 / 210	35 / 170	27 / 140	20 / 120
50 %	35 / 200	30 / 150	25 / 120	20 / 95	15 / 75
100 %	60 / 240	40 / 180	30 / 145	25 / 115	20 / 95
200 %	200 / 480	60 / 210	40 / 180	30 / 140	25 / 105

Equipment cleaning: Within the working time, all solvent-resistant equipment can be cleaned with MC-Cleaner eco or MC-Verdünnung PU. Material that has reacted or set can only be removed mechanically.

TECHNICAL VALUES & PRODUCT CHARACTERISTICS

Characteristic	Unit	Value	Comments
Density	kg/dm ³	approx. 1.11	DIN EN ISO 2811
Viscosity	mPa s	approx. 340	DIN EN ISO 2884-1
Application conditions	°C	5 - 40	component and material temperature
Strain (free)	%	approx. 55	
Strain (in the crack)	%	73 - 91	
Volume change (increase with water)	%	approx. 260	
Tensile strength (concrete, wet)	N/mm ²		EN 12618-1
		approx. 0.15	Concrete (moist)
Surface tension	mN/m	23.3	
Reaction time, pot life	seconds	25 - 250	ASTM D7487-18
Foaming start/end	seconds	approx. 25 - 120	
Tensile strength	N/mm ²	approx. 0.79	

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

Colour shade	yellow-transparent
Equipment cleaning agent	MC-Cleaner eco, MC-Verdünnung PU (thinner), under no circumstances should water or aqueous cleaning agents be used
Delivery form	10 l canister
Storage	Can be stored in original sealed packages at temperatures between 5°C and 25°C in dry conditions for at least 18 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. GISCODE : PU40

Note: The information contained in this data sheet is based on our experience and is correct to the best of our knowledge. It is, however, not binding. It will need to be adapted to the requirements of the individual structure, to the specific application and to non-standard local conditions. Application-specific conditions must be checked in advance by the planning engineer/specifier and, where different from the standard conditions indicated, will require individual approval. Technical advice provided by MC's specialist consultants does not replace the need for a planning review by the client or its agents in respect of the history of the building or structure. Subject to this prerequisite, we are liable for the correctness of this information within the framework of our terms and conditions of sale and delivery. Recommendations of our employees deviating from the information given in our data sheets are only binding for us if they are confirmed in writing. In all cases, the generally accepted rules and practices reflecting the current state of the art must be observed. The information given in this technical data sheet is valid for the product supplied by the country company listed in the footer. It should be noted that data in other countries may differ. The product data sheets valid for the relevant foreign country must be observed. The latest technical data sheet shall apply to the exclusion of previous, duly superseded versions; the date of issue in the footer must be observed. The latest version is available from us on request or may be downloaded from our website. [2300012191]