

MC-Montan Injekt FF

Injection resins for sealing and solidification of rocks and ground and for fixing and uplifting of concrete slabs

Product Properties

- 2-component duromer resins
- Reacts to a pressure-resistant, hard-elastic hard foam by increasing the volume
- Short reaction time approx. 1 minute
- Water-displacing
- Increase in volume with a defined foam
- Complying with building material class B2 for fire behaviour acc. to DIN 4102 in the injection medium
- Generally approved by the building authorities for injections in contact with soil and groundwater (DIBt)
- Tested according to ZTV TL BEB-Stb for the structural preservation of traffic surfaces in concrete constructions

Areas of Application

- Increase of load-bearing capacity of building ground under base slabs and bed-plates
- Fixing concrete slabs on traffic surfaces
- Controlled uplifting injection of base slabs and bed-plates
- Sealing and reinforcing of cavities and cracks in buildings made of concrete and masonry
- Sealing of rigid joints in concrete buildings
- REACH-assessed exposure scenarios: long-term water-contact, periodical inhalation, application

Application

Product description

MC-Montan Injekt FF is a two-component, fast-reacting injection resin that reacts with a defined volume-increase to a solid closed-cell, waterproof and load-bearing hard foam.

Preparative measures

Prior to each application the injectivity of the rocks, building ground or structure must be checked and an injection concept is to be defined.

Injection packers / Injection lances

Placing of suitable packers/lances with adequate bore diameter. Arrangement and setting depth of the packers have to comply with the injection concept.

Mixing of components

Mixing of the components is carried out during application in the mixing-head of the 2-component injection pump (required mixing section: 20 cm grid mixers).

Injection

Injection is carried out using a 2-component injection pump with sufficient pressure and capacity (e.g. Perforator GX 45).

Injection of MC-Montan Injekt FF must be stopped if the temperature of the ground / structure drops below + 6 °C. The access of moisture to the resin components in opened containers is to be effectively prevented (e.g. by drying agents, drying tubes).

Cleaning of equipment

In case of any longer interruption of work, exceeding the pot life of the resin, the injection pump must be flushed thoroughly with MC-Verdünnung PU.

Partially or completely cured material can only be removed mechanically.

Technical Data for MC-Montan Injekt FF

Characteristic	Unit	Value*	Comment
Density of the components	kg/dm ³	1,005 1,235	component A, DIN EN ISO 2811-1 component B, DIN EN ISO 2811-1
Density (mixed)	kg/dm ³	approx. 1.13	DIN EN ISO 2811-1
Mixing ratio	VT MT	1 : 1 100 : 122	component A : component B component A : component B
Dynamic viscosity	mPa·s	460 340	component A, DIN EN ISO 3219 component B, DIN EN ISO 3219
Volume expansion	-	approx. 5.5	according to TL BEB-Stb, table 27, at 2,5 MPa
Compressive strength at a density of 0.4 g/cm ³	MPa	8.9	according to TL BEB-Stb, table 27
Compressive strength 1 h 8 h 7 d	MPa	31.6 44.6 47.7	DIN EN ISO 604
Flexural tensile strength	MPa	56.1	DIN EN 196-1
Application time	min	approx. 1	ASTM D7/487
Application temperature	°C	+ 6 to + 35	air-, material- and substrate temperature

* All technical data are lab values and relate to + 20 °C and 50 % relative humidity.

Product Characteristics MC-Montan Injekt FF

Equipment cleaning	MC-Verdünnung PU Water or water-based cleaning agents must not be used under any circumstance!
Colour	component A: clear-yellowish component B: dark brown
Delivery	MC-Montan Injekt FF: 1,000 l Container, 20 l canister MC-Montan Injekt F: 1,000 l Container, 20 l canister
Storage	Can be stored in original unopened packs at temperatures between + 10 °C and + 25 °C) in dry conditions for at least one year. Protect from frost! Same requirements are valid for transport.
Disposal	Packs must be emptied completely.

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 05/17. 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.