

MC-Montan Injekt FF

Injection hard foam for filling cavities,
for consolidation of rocks and subsoil

Product Properties

- Low-viscosity polyurethane injection resin
- Increase in volume with a defined foam rate
- Water-displacing
- Fast hardening
- Waterproof
- Compressive strength
- Complying with building material class B2 for fire behaviour acc. to DIN 4102
- Generally approved by the building authorities for injections into soil and groundwater (DIBt)
- Tested for traffic areas made of concrete according to ZTV TL BEB-Stb
- REACH-assessed exposure scenarios: long-term water-contact, periodical inhalation, application

Areas of Application

- Increase of load-bearing capacity of subsoil under base slabs and foundations
- Fixing concrete slabs especially on dynamically high loaded surfaces
- Levelling injection of base slabs and foundations
- Sealing and reinforcing of cavities and cracks in structures made of concrete and masonry
- Sealing of rigid joints in concrete buildings

Application

Product description

MC-Montan Injekt FF is a two-component, fast-reacting injection resin that reacts with defined volume increase to a solid closed-cell, waterproof and load-bearing rigid foam. The injection resin can be injected into areas with and without water stress. It fulfils high water hygienic requirements.

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.

Mixing of components

MC-Montan Injekt FF (component A) has to be mixed with MC-Montan Injekt F (component B). The mixing of the components takes place during the injection in the mixing-head of the 2-component injection pump (mixing section 20 cm grid mixers).

Injection packers / Injection lances

For injection, suitable injection packers or injection

lances with an inner diameter ≥ 4 mm are to be used. Arrangement and setting depth of the packers have to comply with the injection concept.

Addition of catalyst

The reactivity of the MC-Montan Injekt F can be accelerated by adding MC-KAT 27 up to 1 % into component A before mixing with component B.

Injection

Injection is carried out using a 2-component injection pump with sufficient capacity, e.g. MC-I 700.

Injection of the resins must be stopped if the temperature of the structure /ground < 5 °C and > 40 °C.

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 (thinner). Partially or completely cured material can only be removed mechanically.



Technical Data for MC-Montan Injekt FF

Characteristic	Unit	Value*	Comment
Mixing ratio	p. b. v. p. b. w.	1 : 1 100 : 122	component A : component B component A : component B
Density	kg/dm ³	approx. 1.13 1.005 1.235	Mixed density, DIN EN ISO 2811-1 Component A, DIN EN ISO 2811-1 Component B, DIN EN ISO 2811-1
Dynamic viscosity	mPa·s	460 340	Component A, DIN EN ISO 3219 Component B, DIN EN ISO 3219
Expansion factor at approx. 2.5 MPa pressure strength	-	approx. 5.5	According to TL BEB-Stb, table 27
Application time	min	approx. 1	ASTM D7/487
Application temperature	°C	+ 5 to + 40	Contraction-/ substrate temperature
Compressive strength			
1 h	MPa	37,3	DIN EN ISO 604
8 h		41,0	
7 d		48,7	
Compressive strength at a density of 0.4 g/cm ³	MPa	8.9	According to TL BEB-Stb, table 27
Flexural strength	MPa	56.1	DIN EN 196-1

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

Product Characteristics MC-Montan Injekt FF

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 MC-KAT 27: 400 ml bottle, 5 x 400 ml per box
Storage	Can be stored in original unopened packs at temperatures between + 5 °C and + 40 °C in dry conditions for at least 18 months. Same requirements are valid for transport.
Equipment cleaning	MC-Verdünnung PU (thinner) Water or water-based cleaning agents must not be used under any circumstance!
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 06/19. 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.