



MC-Montan Injekt LE

Expansion resin for consolidation, bearing capacity increase and sealing of subsoil as well as for lifting of structures

Product Properties

- Low viscosity, fast reacting 2K-expansion resin
- High volume increase, no repressions
- Displaces water, waterproof
- Pressure resistant, dampens vibrations
- Corresponds to building material class B2 according to DIN 4102 in the injection medium
- General building inspectorate approval of DIBt for injection into soil and groundwater
- REACH-assessed exposures: water contact persistent, inhalation periodic, processing

Areas of Application

- Consolidation of soil in deep soil layers up to approx. 10 m by compacting
- Increase in load capacity of subsoil under structures and traffic areas
- Lifting and stabilization of structures by subsoil lifting
- Stopping extreme water inflows in construction pits and structures
- Cavity filling up to 60 cm diameter (without aggregate)

Application

Product description

MC-Montan Injekt LE is a fast-reacting, two-component expansion resin that reacts to form a load-bearing, watertight hard foam. The volume increase is independent of the water content of the injection medium. The resin is injected via injection lances into the ground outside of structures or construction pits.

The resin mixture penetrates during the injection into existing clefs or cavities of the subsoil until it displaces the subsoil as soon as the horizontal resistance is sufficiently high. It comes to the uplift of ground.

Preparation

Before injecting knowledge about the ground conditions in the subsoil is required (geotechnical report). The compatibility has to be ensured by a structural engineer. A concept has to be set.

Injection lances

Injection lances with a recommended internal diameter of 10 to 21 mm should be used for the injection. The insertion depth of the injection lances is between 1 and 15 m under normal conditions according to the execution plan. It is also limited by the reaction time of the resin.

Mixing

Mixing of components A and B takes place during the injection in the 3K special mixing head with the rinsing unit of the 2-component injection pump in the mixing ratio 1: 2 p.b.v.. The special mixing head is necessary to master the extremely short reaction time. Mixtures in the ratio of 1: 1 VT are basically possible and result in a waterproof resin body with slightly lower strength.

Injection

The injection takes place with a 2-component injection pump with rinsing unit and special mixing head, which generates sufficient pressure and delivery rate for the injection task (for example Desoi PN-2036-50 3K).

The injection can take place in a frost-free subsoil independent of the subsoil temperature, if the resin temperature is 5 to 30 ° C.

Machine cleaning

Within the application time all equipment may be cleaned with MC-Verdünnung PU. Completely cured material can only be removed mechanically. Mixer filled with resin must be disposed of properly.



Technical Data for MC-Montan Injekt LE

Characteristic	Unit	Value*	Comments
Density comp. A	kg/dm ³	approx. 1,05	DIN 53 479
Density comp. B	kg/dm ³	approx. 1,23	DIN 53 479
Viscosity comp. A	mPa*s	approx. 265	DIN EN ISO 3219 [25 °C]
Viscosity comp. B	mPa*s	approx. 210	DIN EN ISO 3219 [25 °C]
Mixing ratio	p.b.v.	1 : 2	comp. A : comp. B
Mixing ratio	p.b.w.	25 : 58,5	comp. A : comp. B
Expansion factor	-	approx. 32	Depending on the counter-pressure
Application time	sec	4 – 5	ASTM D7/487
Reaction time	sec	23 - 24	Tack-free
Application temperature	°C	+5 to +40	Subsoil and material temperature

*All technical values relate to +23°C and 50% relative humidity.

Product Characteristics MC-Montan Injekt LE

Cleaning agent	MC-Verdünnung PU Under no circumstances may water or water-based cleaning agents be used
Colour	whitish-yellow
Delivery	20 l (comp. A) and 20 l (comp. B) 200 l (comp. A) and 200 l (comp. B)
Storage	Can be stored in original sealed packages at temperatures between + 5 °C and + 35 °C in dry conditions for at least 18 months. The same requirements are valid for transport.
Disposal	Packs must be emptied completely.

Safety Advice

Please take notice of the health and safety information and advice given on the packaging labels and the safety data sheets. GISCODE: PU40.

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 refer to the accepted engineering rules, which have to be observed during application. This provided we are liable for the correctness of this date 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 05/19. Some technical changes have been made to this information. Older editions are invalid and may not be used anymore. If a technically revised edition is issued, this edition becomes invalid.