

MC-Injekt 2111 SF

Hydrophobic fast-foaming 1-component PU resin for water stopping injection applications

Product Properties

- MDI-based PU resin with integrated catalyst (water reactive)
- High foaming rate
- Slightly flexible open-cell foam structure
- Fast reaction, can be injected directly against water flow
- Good bond to wet substrates
- Free of phthalate plasticizers and free of solvents like acetone
- No release of toxic substances into water and soil and no strong odor
- Easy application by means of a 1-component pump

Areas of Application

- Sealing of water-bearing cracks, joints and cavities
- Injection against pressured water prior to application of permanent sealing injection with MC-Injekt 2300-series
- Water stop of below-grade structures: tunnels, basements, diaphragm/sheet pile/secant pile walls
- REACH-assessed exposure scenarios for periodical inhalation, application

Application

General information

MC-Injekt 2111 SF is a 1-component injection resin with integrated catalyst which needs water in order to trigger its chemical reaction.

Basically, it may be injected into concrete and masonry structures as well as into rocks and building ground both with and without exposure to water. However, MC-Injekt 2111 SF needs a minimum water amount of 10% to react with in order to develop a non-shrink foam structure. Thanks to its short reaction time, MC-Injekt 2111 SF can be injected directly against the water flow to stop the leakage. In certain cases, it's advisable to inject a PU grout from the MC-Injekt 2300-Series subsequently to achieve a permanent sealing of the structure.

Application

Packers (e.g. MC-Bore Packer DS 14) with adequate weir openings (≥ 1.5 mm) have to be placed in a proper way. The injection work is carried out by means of a 1-component injection pump (e.g. MC-I 510) with sufficient pressure.

MC-Injekt 2111 SF poured into the hopper of the injection pump may react with air humidity and form a skin on the top. The skin prevents the liquid material underneath from further unwanted reaction. Make sure the skin is not sucked into the pump.

The Injection works should be carried out in steps depending on site conditions to allow the foam enough time to react.

Cleaning of tools and machines

In case of any longer interruption of work the injection-pump must be flushed thoroughly with suitable cleaning agents, e.g. MC-Thinner PU to prevent foaming in contact with humidity. Water or water-based cleaning agents must not be used under any circumstances.

We recommend maintaining the pump with oil after finishing the injection works. For any further details please refer to the manual of the injection pump.

Partially or completely cured material can only be removed mechanically.

Technical Data of MC-Injekt 2111 SF

Characteristic	Unit	Value*	Comments
Density	kg/dm ³	1.148	ISO 2811
Viscosity	mPa*s	410 ± 10	ISO 3219
Free foaming rate	%	4,000	ASTM D471 16a / reaction with 10% water
Start and end of foaming	seconds	15 - 100	reaction with 10% water
Application time	hours	6 - 8	
Application temperature	°C	8 - 40	Material and substrate temperature

* All technical values relate to 23 ± 2 °C

Product Characteristics

Colour	Yellowish
Cleaning agent	MC-Thinner PU Water or water-based cleaning agents must not be used under any circumstances
Packaging	18 kg metal container
Storage conditions	Can be stored in original sealed packs at temperatures between +5 and 25 °C in dry conditions for at least 1 year. The same requirements are valid for transport.
Disposal	Packs must be emptied

Note:

The information on this data sheet is based on our experiences and correct to the best of 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 02/21. Some technical changes have been made to this print medium. Older editions are invalid and may not be used anymore. If technically revised new edition is issued, this edition becomes invalid.