

MC-DUR 1077 FG

Transparent, two-component epoxy resin binder for casting and grouting mortars

Product Properties

- Unfilled epoxy resin with special creep- and levelling properties for manufacturing grouting mortars
- Especially good heat/shape stability for cold-curing epoxy resins
- Excellent levelling properties
- Ready-formulated casting- and grouting mortar
- Low heat-development during curing, even for larger application volumes
- Good resistance against numerous chemicals, including oils and greases

Areas of Application

- In combination with the MC-Special graining FG for manufacturing casting- and grouting mortars for application on machine foundations, mill foundations, crane tracks etc.
- REACh-assessed exposure scenarios: periodical water-contact, periodical inhalation, application

Application

Substrate Preparation

See leaflets "General Application Advice": "Industrial Flooring - Substrate and Substrate Preparation" and "Reactive Resins".

Mixing

MC-DUR 1077 FG consists of a base and a hardener component delivered in pre-packed quantities. Before application the base and the hardener must be mixed together thoroughly, using a slowly rotating mixer. After mixing the compound must be refilled into another clean container and briefly mixed again.

The ready-to-use grouting mortar is made by mixing MC-DUR 1077 FG (resin) and MC-Spezial-sand FG (special-grain). The components are supplied in pre-packed quantities. One bucket of resin is mixed with two bags aggregate. The aggregate is put into a forced mixer, then the mixed resin is added. Afterwards it is mixed until homogenous.

Collection of air, e.g. due to exceedingly high revolutions, must be avoided.

Application

Application of the finished grouting mortar depends on local factors. In any case it is necessary to provide sufficiently sized ventilation holes.

General Information

Coverage, application times, resistance to foot traffic and time until full resistance are determined by temperature and site properties and condition. See also leaflet "General Application Advice - Reactive Resins".

Exposure to chemicals and UV-light may cause colour changes, which usually do not affect the properties and usability of the coating. Mechanically and chemically exposed surfaces are subject to wear and tear. Regular check-ups and continuous maintenance are advised.

Technical Data for MC-DUR 1077 FG

Characteristic	Unit	Value	Comments
Mixing ratio	p. b. w.	4 : 1	base : hardener
	p. b. w.	1 : 5.75	resin : aggregate (MC-special graining FG)
	packing units	1 : 2	pack resin (à 8.7 kg) : bag aggregate (à 25 kg)
Density	g/cm ³	approx. 1.1	pure binder
	g/cm ³	approx. 2.1	grouting mortar
Viscosity	mPa·s	approx. 550	at 20 °C and 50 % relative humidity
Pot life	minutes	approx. 45	at 20 °C and 50 % relative humidity
Time until full resistance	days	7	at 20 °C and 50 % relative humidity
Compressive strength	N/mm ²	approx. 110	at 20 °C and 50 % relative humidity
Flexural strength	N/mm ²	approx. 30	at 20 °C and 50 % relative humidity
Thermal expansion coefficient	α_T	approx. $3.0 \times 10^{-5} \text{ K}^{-1}$	
E-modulus	N/mm ²	11,000	
Maximum operation temperature	°C	+ 50	
Application conditions	°C	≥ 10; ≤ 30	air, material and substrate temperature
	%	≤ 85	relative humidity
	K	3	above dew point
Coverage	kg/m ²	approx. 2.1	per mm layer thickness

Product Characteristics for MC-DUR 1077 FG

Cleaning agent	MC-Reinigungsmittel U
Delivery	8.7 kg packs (MC-DUR 1077 FG) and 25 kg bags (MC-special aggregates FG)
Storage	Can be stored in cool (below 20 °C) and dry conditions for 24 months in original unopened packs. Protect from frost!
Disposal	Packs must be emptied completely.

Safety Advice

Please take notice of the safety information and advice given on the packaging labels and safety information sheets and please take notice of the chapter "Safety Measures for Handling Coating Materials and Reactive Resins". GISCODE: RE1

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 06/20. 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.