

Technical Data Sheet

StoPox MH 100

EP mortar resin, low-emission



Characteristics

Area of application

- interior and exposed to the weather
- on floors
- as mortar resin for epoxy resin screeds
- for production areas in industrial sectors, e.g: the food-processing industry, mechanical engineering industry, automotive industry

Properties

- low-emission
- high resistance to abrasion and weathering
- in combination with StoQuarz AS, it can be smoothed using a trowel
- temperature-resistant up to approx. +100 °C dry heat
- can be cleaned for a short period with superheated steam at +120 °C, if permanently wet: maximum +60 °C

Appearance

- transparent, yellowish

Information/notes

- product is in accordance with EN 13813
- various test certificates

Technical data

Criterion	Standard / test specification	Value/ Unit	Notes
Bond strength	EN 1542	> 2,0 MPa	
Compressive strength	EN ISO 12190	80 MPa	mortar (1:8)
Flexural strength	EN ISO 178	27 MPa	mortar (1:8)
Viscosity (at 23 °C)	EN ISO 3219	700 - 750 mPa.s	Binder
Density (23 °C)	EN ISO 2811	1,07 g/cm ³	Binder
Abrasion resistance according to Taber device	EN ISO 5470-1	74 mg	CS 10/1000U/1000g

The characteristic values stated are average values or approximate values. Due to the natural raw materials in our products, the stated values can vary slightly in the same delivery batch; this does not affect the suitability of the product for its intended use.

Substrate

Requirements

Requirements on the substrate:

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- Dry, load-bearing
- Free from separating, native, or foreign substances
- Remove weak layers.
- Remove any accumulation of fine concrete particles on the surface.

Dry substrate:

- Depends on the compressive strength class
- Dry in accordance with the definition in EN 1504-10

Moisture content:

- Measure the moisture content of the concrete substrate with a calcium carbide meter.
- Moisture content for concrete qualities up to C30/37: max. 4 per cent by weight
- Moisture content for concrete qualities up to C35/45: max. 3 per cent by weight

Substrate temperature: at least +10 °C, 3 K above the dew point

Bond strength, average: 1.5 N/mm²

Bond strength, lowest single value: 1.0 N/mm²

Preparations

Prepare all the above-mentioned substrates using a mechanical method, see "Substrate, requirements".

Example:

- Shot-blasting
- Milling followed by shot-blasting
- Abrasive blasting

Application

Application temperature

minimum temperature: +10 °C
maximum temperature: +30 °C

Relative humidity:

maximum 75 % at +10 °C
maximum 85 % at +30 °C

Time for application

at +20 °C: approx. 20-25 minutes

Mixing ratio

component A : component B
A : B
100.0 : 45.0 parts by weight

Material preparation

Put the sand mixture in the compulsory mixer. Then add the mixed binding agent and mix until homogeneous.

Component A and Component B are supplied in the correct mixing ratio and should be mixed in accordance with the following instructions. Stir component A, then add all of component B.

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Mix thoroughly with a slow-running paddle mixer (max. 300 rpm) until a homogeneous, streak-free compound develops. It is also vital to stir thoroughly at the sides and the bottom in order to evenly distribute the hardener. Mixing time is at least 3 minutes.

After mixing, pour the compound into a clean container and mix again.

Do not apply from the delivery container!

The temperature of the individual components must be min. +15 °C when mixing.

Consumption	Type of application	Approx. consumption	
	as epoxy resin repair mortar per mm layer thickness (binding agent)	0,15	kg/m ²
	as liquid-tight epoxy resin screed total mixture per mm layer thickness	2,3	kg/m ²

Material consumption depends on the application, substrate, and consistency, among other factors. The stated consumption values are only to be used as a guide. If required, determine precise consumption values on the basis of the specific project.

Coating build-up

A: Repair mortar for partial areas of spalling:

- 1) Prepare the substrate.
- 2) Priming: StoPox GH 205 / StoPox MH 100
- 3) Scatter: StoQuarz 0.6-1.2 mm
- 4) Repair mortar: StoPox MH 100 with StoQuarzsandmischung

B: Liquid-tight epoxy resin screed for normal industrial stress.

- 1) Prepare the substrate.
- 2) Priming: StoPox GH 205
- 3) Scatter: StoQuarz 0.3-0.8 mm
- 4) Epoxy resin screed: StoPox MH 100 with StoQuarzsandmischung
- 5) Sealing coat (optional): StoPox MH 100

Application

A: Repair mortar for coarse areas of spalling.

1) Substrate preparation

2) Prime using StoPox GH 205

Apply StoPox GH 205 with a rubber squeegee, flooding until the substrate is totally free of pores, and then evenly spread the material by rolling/brushing. Avoid forming puddles.

consumption: approx. 0.2 - 0.3 kg/m², depending on the roughness of the substrate

Waiting time until the next coating: maximum 48 hours.

If necessary, scatter with StoQuarz 0.6 - 1.2 mm, consumption approx. 0.5 - 1.0 kg/m²

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3) Reprofiling

Produce and introduce the repair mortar into the freshly primed area of spalling manually, using a smoothing trowel.

The following sand mixtures have proven to work well:

(Areas of spalling, depth: 10 - 50 mm):

11 parts by weight special extender StoBallotini (*); 18 parts by weight quartz sand 0.1 - 0.5 mm; 35 parts by weight quartz sand 1.0 - 1.7 mm; 36 parts by weight quartz sand 3.5 - 7.0 mm;

mixing ratio resin: aggregate = 1:14 parts by weight

material consumption: approx. 150 g/m² and mm layer thickness (StoPox MH 100)

Other sand mixtures and grain sizes are also possible. However, the composition of the aggregate mixture should be within the favourable range indicated in DIN 1045.

(* Can be ordered at:

Potters Ballotini GmbH, Morschelmer Straße 11, 67292 Kirchheimbolanden
Tel. +49 6352 84 84, Fax +49 6352 18 53

B: Liquid-tight epoxy resin screed for normal industrial stress.

1) Substrate preparation

2) Prime coating of StoPox GH 205

Apply StoPox GH 205 with a rubber squeegee, flooding until the substrate is totally free of pores, and then evenly spread the material by rolling/brushing. Avoid the formation of puddles.

Material consumption: approx. 0.3 - 0.5 kg/m², depending on the absorption capacity of the substrate.

Scatter kiln-dried quartz sand, graining 0.6 - 1.2 mm, over the fresh prime coating.

consumption: approx. 0.5 - 1.0 kg/m²

Do not scatter too thickly.

3) Produce and apply the epoxy resin screed, consisting of:

1 part by weight StoPox MH 100 and 6 to 8 parts by weight StoQuarz AS (quartz sand particle size with graded particle fraction, maximum particle size approx. 3 mm).

Distribute the mixture using a screed box, then compact and smooth with a plastic trowel or a power trowel.

Only mix the amount of material that can be applied within the pot life.

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Material consumption:

StoPox MH 100 approx. 0.23 kg/m² per mm of layer thickness.

Total mixture: approx. 2.0 kg/m² per mm layer thickness

Layer thickness: normally 10 - 15 mm

4) Increasing the slip resistance (optional)

Apply StoPox MH 100 filled 1:1 parts by weight with StoQuarz 0.1-0.2 mm.

consumption: approx. 0.3 kg/m² (StoPox MH 100), approx. 0.3 kg/m² (StoQuarz 0.1-0.2 mm)

Scatter the fresh prime coating with StoQuarz 0.3-0.8 mm or StoQuarz 0.6-1.2 mm (depending on the required slip resistance class).

Consumption: approx. 0.5 - 0.8 kg/m², depending on the scatter grain

Then seal again using StoPox MH 100 for optimal grain integration.

Consumption: approx. 0.5 - 0.8 kg/m², depending on the scatter grain

Note:

Depending on the exposure to chemicals, discolourations can occur. These do not, however, impair the technical function of the coating.

Any yellowing which occurs under UV stress does not impair the technical properties.

Drying, curing, ready for next coat

Reworking time:
at +20 °C: approx. 14-24 h

Full load-bearing capacity:
mechanically after 7 days
chemically after 28 days

Cleaning the tools

Clean tools with StoDivers EV 100 or StoCryl VV.

Notes, recommendations, special information, miscellaneous

Frequent thermal stress and chemical exposure: visual changes may occur, e.g. become matt, discolouration.

Dry pigments (e.g. iron oxide red) can be used for colouring the epoxy resin screed. Add a quantity of approx. 0.1 weight per cent related to the total mixture.

Observe the general application instructions:

- see www.stocretec.de, Products
- see technical manual, notes

Declaration of performance, CE marking:

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- declaration of performance: see www.stocretec.de
- The abrasion resistance specified in the declaration of performance refers to the smooth, not scattered covering.

Delivery

Packaging tin pail

Article number	Name	Container
68105/003	StoPox MH 100 Set	10 kg set
68105/002	StoPox MH 100	600 kg set
68105/001	StoPox MH 100	25 kg set

Storage

Storage conditions Store in dry and frost-free conditions. Protect from direct sunlight.

Storage life The product quality is best guaranteed in its unopened original container until its shelf life has expired. This information is included in the batch number on the container. Explanation of batch nos.:
digit 1 = last digit of the year, digits 2 + 3 = calendar week, example: 2450013223 - storage life ends at week 45 in 2022
See product packaging

Identification

Product group Coating

GISCODE RE90

Safety This product is subject to compulsory labelling in accordance with the current EU regulation.
Observe the Safety Data Sheet!

Special notes

The information in this Technical Data Sheet serves to ensure the product's intended use, or its suitability for use, and is based on our findings and experience. Users are nevertheless responsible for establishing the product's suitability and use. Applications not specifically mentioned in this Technical Data Sheet are permissible only after prior consultation. Where no approval is given, such applications are at the user's own risk. This applies in particular when the product is used in combination with other products.

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When a new Technical Data Sheet is published, all previous Technical Data Sheets are no longer valid. The latest version is available on the Internet.

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