Technical data sheet

StoPox MH 105

EP mortar resin, quick-curing

Characteristics

Areas of application

- interior and exposed to weathering
- onto floor areas
- special mortar resin for epoxy resin screeds

Properties

- high resistance to abrasion and weathering
- cures at low temperatures down to +5 °C
- rapid curing at ambient room temperature
- temperature-resistant up to approx. +100 °C dry he at

Appearance

- transparent

Information/notes

- product is in accordance with EN 1504-2
- product is in accordance with EN 13813

Technical data

Criterion	Standard / test regulation	Value/ Unit	Notes
Tensile strength (28 days)	EN 1542	> 2.0 MPa	
Flexural strength (28 days)	EN ISO 178	> 60 MPa	
Viscosity (at 23 °C)	EN ISO 3219	600 - 950 mPa.s	mi xture
Shore hardness D	DIN 53505-D/EN ISO 868	69 - 75	

Technical data sheet
StoPox MH 105

Density (mixture 23 °C)	EN ISO 2811	1.07 - 1.13 g/cm³

The characteristic values stated are average values or approx. values. We use natural raw materials in our products, which means that 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

The substrate must be dry, load-bearing, and free from native and foreign substances that have a separating action.
Remove less solid layers and laitance.

Dry in accordance with the definition of the Restoration Guideline 2001-10, but depending on the concrete strength class. Residual moisture may amount to max. 4 wt% for concrete in strength classes up to C30/37 and max. 3 wt% for C35/45 concrete, measured with a calcium carbide meter.

Substrate temperature greater than +5 °C and 3 K ab ove dew point.
Average tensile bond strength 1.5 N/mm²
Tensile bond strength of the single smallest value 1.0 N/mm²

Preparations

Prepare the substrate using a suitable mechanical process such as shot-blasting, milling and then shot-blasting, or abrasive blasting.

Application

Application temperature

Lowest application temperature: +5 °C
Maximum approved relative humidity 75 %
Highest application temperature: +25 °C
Maximum approved relative humidity 85 %

Processing time

At +10 °C: approx. 30 minutes
At +23 °C: approx. 20 minutes
At +25 °C: approx. 15 minutes

Mixing ratio

Component A : component B = 100.0 : 52.9 parts by weight

Material preparation

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

Mix thoroughly with a slow-running stirrer (max. 300 rpm) until a homogeneous, streak-free compound develops. It is also vital to stir thoroughly at the sides and the bottom to ensure that the hardener spreads evenly. 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/m²
As liquid-tight epoxy resin screed total mixture per mm layer thickness	2.0	kg/m²

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 procedure

Repair mortar for partial areas of spalling (depth up to 5 cm)
1) Substrate preparation
2) Prime coating of StoPox GH 205 / StoPox MH 105
3) Producing and introducing the repair mortar StoPox MH 105

Liquid-tight epoxy resin screed for normal industrial stress.
1) Substrate preparation
2) Prime coating of StoPox GH 205
3) Producing and applying the epoxy resin screed
Layer thickness: normally 10 - 15 mm
4) Increasing the slip resistance (optional)

Application

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

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 of Sto Ballotini special filler material (*); 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 of resin : aggregate = 1 : 14 parts by weight
Material consumption: approx.150 g/m² and mm of layer thickness (StoPox MH 105)

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, Morschhelmer Straße 11, 67292 Kirchheimbolanden
Tel. +49 6352 84 84, Fax +49 6352 18 53

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 forming 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 105 and 6 - 8 parts by weight StoQuarz AS (quartz sand grading curve with graded grain fraction, maximum grain 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 time for application.

Material consumption:
StoPox MH 105 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 105 filled 1 : 1 parts by weight with StoQuarz 0.1 - 0.2 mm.
Consumption: approx. 0.3 kg/m² (StoPox MH 105); 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 105 for optimal grain integration.

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

Note:
Depending on 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 +10℃: approx. 12 h At +23℃: approx. 6 h At +25℃: approx. 5 h
Cleaning the tools	Clean with StoCryl VV.
Indications, recommendations, special information, miscellaneous	The Declaration(s) of Conformity can be obtained from the StoCretec Technical Information Centre General application instructions can be found at www.stocretec.de (Products) and in the latest issue of the "Technical Data Sheets" manual, in the appendix.

The abrasion resistance class specified in the CE marking refers to the smooth, not scattered covering.

Delivery

Packaging pail and tin barrel

	Article number	Designation	Container
	01519/007	StoPox MH 105 Set	25 kg set
	01519/006	StoPox MH 105 Set	520 kg set
	01519/003	StoPox MH 105 Combi	10 kg combi

Storage

Storage conditions Store in dry and frost-free conditions; avoid direct solar radiation.

Storage life In the original container until ... (see packaging).

Certificates/approvals

Identification

Product group Epoxy resin

Safety This product is subject to compulsory designation in accordance with the current EU directive.
You will receive an EU Safety Data Sheet with your first order.
Please observe the information regarding the handling of the product, its storage, and disposal.
Practical guide for dealing with epoxy resins: "Sicherer Umgang mit Epoxidharzen in der Bauwirtschaft".
And
Test report on the protective action of chemical protective gloves against EP coatings: "Handschuhe für lösemittelfreie Epoxidharz-Systeme"
and "Schutzhandschuhe: Richtig anwenden"
Www.gisbau.de/service/epoxi/Bericht.pdf

Technical data sheet
StoPox MH 105

Published by:
Berufsgenossenschaft der Bauwirtschaft
Hildegardstrasse 28-30, 10715 DE-Berlin
Tel. (+49) 30 85781-0, fax. (+49) 30 85781-500, www.gisbau.de/service

Guidelines for the planning of building site facilities: "Wirtschaftliche and sichere Baustelleneinrichtung"

Published by:
Geschäftsstelle der Initiative Neue Qualität der Arbeit (INQA)
Friedrich-Henkel-Weg 1-25, 44149 DE-Dortmund
Tel. (+49) 231 9071-2171, fax. (+49) 231 9071-2170
Www.inqa.de/ under Themen/Bauwirtschaft/Wissen and www.inqa-bauen.de

Special notes

The information or data 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. Nevertheless, users are responsible for establishing the suitability of the product for its intended use.
Applications other than those explicitly mentioned in this technical data sheet are only permissible after prior consultation. Where no approval is given, such applications are at the risk of the user. This applies particularly to combinations with other products.

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.

Sto SEA Pte Ltd
159 Sin Ming Road
#06-02 Amtech Building
Singapore 575625
Phone: +65 6453 3080
Fax : +65 6453 3543
info.sg@sto.com
www.sto-sea.com

Sto SEA Sdn Bhd
28, Jalan Rajawali 3
Bandar Puchong Jaya,
47170 Selangor, Malaysia
Phone: +60 3 8080 9066
Fax: +60 3 8080 9255
info.my@sto.com
www.sto-sea.com

Sto SEA Pte Ltd
3656/49-52 Green Tower, 16th Floor
Rama IV Rd, Klongton, Klongtoei,
10110 Bangkok, Thailand
Phone: +66 2 1684 921 Ext. 230
Fax: +66 2 1684 999
info.sg@sto.com
www.sto-sea.com

StoCretec GmbH
Gutenbergstr. 6
65830 Kriftel,
Germany
Phone: +49 6192 401 104
Fax: +49 6192 401 105
info.sg@sto.com
www.sto-sea.com

*Product images may differ from the actual product.