

Technical Data Sheet

StoCrete GM

Repair mortar, polymer-modified, cementitious,
layer thickness of 6-30 mm



Characteristics

Area of application

- as concrete repair product for the repair of concrete structures (concrete and reinforced concrete)

Properties

- polymer-modified, cementitious concrete repair product (PCC / RM)
- very good adhesive strength on a concrete substrate
- good application overhead
- very good non-sag properties
- no separate tack coat necessary

Information/notes

- product is in accordance with EN 1504-3
- not suitable for surfaces subject to foot or vehicle traffic

Technical data

Criterion	Standard / test specification	Value/ Unit	Notes
Bulk density of fresh mortar	EN 1015-6	2,0 kg/dm ³	
Maximum particle size		2 mm	
Bond strength (28 days)	EN 1542	> 1,5 MPa	
Compressive strength	EN 12190	45 MPa	
Flexural strength	TP BE-PCC	9 MPa	
Static modulus of elasticity	EN 13412	17 GPa	

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:
The concrete substrate must be dry, load-bearing and free from native and foreign substances that have a separating action, as well as from corrosion-promoting components (e.g. chlorides).
Remove less strong layers and laitance.

Damp in accordance with the definition in the DAfStb (German) Repair Guideline 2001-10.

Preparation grade of the exposed reinforcing steel after substrate preparation: Sa

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2½ in accordance with EN ISO 8501-1.

Average bond strength: 1.5 N/mm²
Bond strength, lowest single value: 1.0 N/mm²

Preparations

Prepare the substrate using a suitable mechanical process, such as abrasive blasting or high-pressure water blasting (> 800 bar).
Open pores and blow-holes sufficiently.

Bevel the edges of the areas of spalling under approx. 45°.

Application

Application temperature

Lowest application temperature: +5 °C
Highest application temperature: +30 °C

Time for application

At +5 °C: approx. 90 minutes
At +10 °C: approx. 60 minutes
At +30 °C: approx. 40 minutes

Mixing ratio

25 kg of material in accordance with the description / 2.75 l of water = 1.0 : 0.11 parts by weight

Material preparation

Decant water, then add the pre-blended dry mortar. Mix for approx. 2 minutes.
Allow to mature for approx. 3 minutes. Remix for approx. 30 seconds.

Consumption

Type of application	Approx. consumption	
per mm layer thickness	1,8	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

1) Substrate preparation
2) Protection against corrosion: StoCrete TK (in case of exposed reinforcement)
3) Refilling with StoCrete GM
Layer thickness: 6 - 30 mm

Application

1) Substrate preparation
Approx. 24 h before applying the product, sufficiently pre-wet the concrete substrate for the first time.
At the time of application, however, it must be dry to the point that it just appears slightly damp.

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2) Protection against corrosion

Immediately after derusting of the reinforcing steel in accordance with EN ISO 12944, Part 4, coating with StoCrete TK is carried out in two application cycles. The reinforcing steels are coated uniformly without gaps using a paint brush.

Waiting time between the two application cycles is 4.5 hours.

The protection against corrosion must be sufficiently hardened on the reinforcing steel so that it cannot detach from the reinforcing steel during the second application cycle.

First application cycle: StoCrete TK grey Consumption approx. 130 g/m one-time application Ø to 18 mm

Second application cycle: StoCrete TK light grey consumption approx. 140 g/m one-time application Ø to 18 mm

or

First application cycle: StoCrete TK grey consumption approx. 150 g/m one-time application Ø above 18 mm

Second application cycle: StoCrete TK light grey consumption approx. 160 g/m one-time application Ø above 18 mm

3) Reprofiling

When using StoCrete GM, no bonding agent is necessary.

Pre-fill the prepared and slightly damp areas of spalling with StoCrete GM, then reprofile wet-in-wet.

Apply manually or by machine.

To ensure a good adhesive bond, always work wet on wet.

Consumption: approx. 20 kg/m² per cm spalling depth (mixed material)

Manual application:

For manual application, use a bucket trowel, spatula, plastering trowel.

Machine application:

For machine application, we recommend sprayers such as PFT N2V.

To obtain the required technical properties of StoCrete GM, sufficient and careful curing is necessary.

4) Curing

Curing procedure:

- a) Cover with film or sheeting
- b) Spray with water
- c) Chemical curing

Under normal conditions, curing must last at least 3 days. Observe the relevant standard DIN 1045-3:2012-03, the B8 data sheet "Nachbehandlung und Schutz des jungen Betons" (4.2014) published by the Verein Deutscher Zementwerke e.V., and ZTV-ING (2014/12) (available in German only).

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Note:

Chemical curing may only be carried out if the subsequent work is compatible with this.

It is not possible to achieve a uniform colour shade of the mortar surface for procedural reasons.

The foil must not touch the surface of the mortar.

A key part of curing is adequately wetting the concrete substrate before applying the mortar, so that the substrate is water-saturated and the fresh mortar does not extract mixing water.

Drying, curing, ready for next coat

At +20 °C and 65 % relative humidity, over-coatable with:

Mineral slurry: after 24 hours

Mineral fairing coat: after 24 hours

Cleaning the tools

Clean with water immediately after use. Hardened material can only be removed mechanically.

Notes, recommendations, special information, miscellaneous

The declaration(s) of performance can be obtained from the StoCretec Technisches InfoCenter

General application instructions are available at www.stocretec.de and in the notes of the latest Technical Manual.

Delivery

Article number	Name	Container
00708-001	StoCrete GM	25 kg bag

Storage

Storage conditions

Store in dry conditions.

Storage life

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

This product has a low chromate content.

The product quality is best guaranteed in its unopened original container until its shelf life has expired. The first digit of the batch number is the final digit of the year. The second and third digits indicate the calendar week. Example:

1450013223 - shelf life until end of calendar week 45 in 2021.

For further explanation, see the price list.

Identification

Product group

Repair mortar

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GISCODE ZP1

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

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.

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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