Technical Data Sheet
StoCrete SM

Quick repair mortar, polymer-modified, cementitious, layer thickness 3 - 40 mm

Characteristics

Area of application

- as a concrete restoration product for repairing concrete structures (concrete, reinforced concrete, and lightweight concrete)
- as a fine filler (3 - 5 mm)

Properties

- polymer-modified, cementitious concrete repair product (PCC)
- very good adhesive strength on a concrete substrate
- very good application overhead
- very good non-sag properties
- no separate bonding agent necessary
- quick-curing
- can be quickly over-coated

Information/notes

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

Technical data

Criterion	Standard / test specification	Value/ Unit	Notes
Bulk density of fresh mortar	EN 1015-6	1.9 kg/dm³	
Maximum particle size		0.8 mm	
Bond strength (28 days)	EN 1542	> 0.8 MPa	
Compressive strength (28 days)	EN 12190	28 MPa	
Flexural strength (28 days)	TP BE-PCC	6 MPa	
Static modulus of elasticity (28 days)	EN 13412	11 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 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 solid layers and laitance.

Damp in accordance with the definition in the DAfStb (German) Repair Guideline 2001-10.
The cleanliness grade of the exposed reinforcing steel following substrate preparation: Sa 2 1/2 in accordance with EN ISO 8501-1.

Average bond strength 1.5 N/mm²
Bond strength of the single smallest 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 +10 °C: approx. 30 minutes
At +20 °C: approx. 15 minutes
At +30 °C: approx. 10 minutes

Mixing ratio

25 kg of material in accordance with the description / 4.0 - 4.25 l water = 1.0 : 0.16 - 0.17 parts by weight

Material preparation

Decant water first and add the pre-blended dry mortar. Stir for approx. 2 minutes. Allow to mature for approx. 3 minutes. Remix for approx. 30 seconds.

Consumption

Type of application	Approx. consumption	
per mm of layer thickness	1.7	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 build-up

1) Substrate preparation
2) Protection against corrosion with StoCrete TK (for exposed reinforcement)
3) Reprofiling with StoCrete SM
Fine filling with StoCrete SM.
local reprofiling: 3 - 40 mm
full-surface fine filling: 3 - 5 mm

Application

1) Substrate preparation
Derust the exposed reinforcing steel in accordance with DIN EN ISO 12944-4 up to cleanliness grade Sa 2 1/2. The derusted reinforcing steel must be free from dust and grease.

2) Corrosion protection
Immediately after derusting the reinforcing steel, coat with StoCrete TK in two application cycles in accordance with DIN EN ISO 12944, part 4.
Coat the reinforcing steel completely and evenly using a paint brush.

Waiting times between the two application cycles 4.5 hours.
The corrosion protection must have hardened on the reinforcing steel to an extent that it cannot be loosened from the reinforcing steel during application cycle 2.

Application cycle 1: StoCrete TK grey, consumption approx. 130 g/m single application Ø up to 18 mm
Application cycle 2: StoCrete TK light grey, consumption approx. 140 g/m single application Ø up to 18 mm
or
Application cycle 1: StoCrete TK grey, consumption approx. 150 g/m single application Ø over 18 mm
Application cycle 2 StoCrete TK light grey consumption approx. 160 g/m single application Ø over 18 mm
Sufficiently pre-wet the concrete substrate before applying the product (about 24 hours before the first application cycle). At the time of application, however, the concrete substrate must be dry to the point that it just appears slightly damp.

3) Reprofiling
Pre-fill the local areas of spalling with StoCrete SM, then carry out reprofiling wet on wet. Apply manually using a mason's trowel, spatula, or square trowel. To ensure adhesion, always work wet on wet.

Please note: do not dilute StoCrete SM with water once the reaction has begun, i.e. when it starts becoming stiff.

Layer thickness of StoCrete SM 3 - 40 mm.
Consumption of reprofiling mortar: approx. 19 kg/m² per cm of spalling depth/layer thickness (mixed material)

For full-surface application as a fine filler, apply a scratch coat to seal pores and cavities, then apply the StoCrete SM filler wet on wet in the corresponding layer thickness. To ensure a good adhesive bond, always work wet on wet.

Smoothing the surface is the final processing stage. Rub out spatula strokes with a sponge; when doing so, do not add any more water.

Layer thickness of StoCrete SM: 3 - 5 mm.
Consumption of fine filler: approx. 1.9 kg per mm of layer thickness (mixed material)

4) Subsequent treatment

Subsequent treatment procedure:
a) Cover with film or mats
b) Spray with water
c) Subsequent treatment using chemicals

Under normal conditions, subsequent treatment must last at least 3 days. Observe the relevant standard DIN 1045-3: 2001-07, the B8 data sheet "Nachbehandlung von Beton" (11.2002) published by the Bauberatung Zement, and ZTV-ING (2006-07) (Additional technical terms of contract and guidelines for civil engineering).

Note:
Curing with chemicals may only be carried out if subsequent work is compatible with this.
A uniform colour shade of the mortar surface is not possible due to the application method.
The film must not touch the surface of the mortar.

A key part of curing is adequately wetting the concrete substrate prior to applying the mortar, so that the substrate is water-saturated and the fresh mortar does not extract mixing water.
The substrate must be "damp", as described in the section on substrate preparation, in accordance with the DAfStb (German) Repair Guideline.

Drying, curing, ready for next coat	At +20 °C and 65 % relative humidity, over-coatable with: Mineral slurry: after 4 hours Mineral fine filler: after 4 hours Sealer: 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 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.

Delivery

Article number	Name	Container
00701-018	StoCrete SM	10 kg pail
00701-001	StoCrete SM	25 kg bag

Storage

Storage conditions	Store in dry conditions.
Storage life	In the original container until ... (see packaging).

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This product has a low chromate content. We guarantee this property until maximum storage life expires. Please observe the guaranteed storage life data on the batch no. shown on the container.
Explanation of batch number: e.g. 6050017152
In this example, storage life until the end of week 05 in 2016 is guaranteed (digit 1 = last digit of the year, digits 2 + 3 = calendar week). For further explanation, see the price list.

Identification

Product group Repair mortar

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.

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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