

Technical Data Sheet

StoCrete SM P

Quick repair mortar with integrated protection against corrosion, polymer-modified, cementitious, layer thickness 3-40 mm



Characteristics

Area of application

- as a concrete repair product for repairing concrete structures (concrete, reinforced concrete, and lightweight concrete)
- as a fairing coat (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 resistance to flow
- no separate bonding agent necessary
- quick-curing
- can be quickly over-coated
- no separate protection against corrosion necessary

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/dm ³	
Maximum particle size		0.8 mm	
Bond strength (28 days)	EN 1542	> 0.8 MPa	
Compressive strength (28 days)	EN 12190	25 MPa	
Flexural strength (28 days)	TP BE-PCC	6 MPa	
Static modulus of elasticity (28 days)	EN 13412	7.5 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

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Requirements

Requirements on the substrate:

The concrete substrate must be load-bearing and free from native and foreign release agents, as well as from corrosion-promoting components (e.g. chlorides). Remove weak 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 2½ in accordance with EN ISO 8501-1.

Average bond strength 1.5 N/mm²

Lowest single bond strength 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. 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

1.7

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) Reprofiling with StoCrete SM P

Fairing coat of StoCrete SM P.

Layer thickness:

local reprofiling: 3 - 40 mm

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full-surface fairing coat: 3 - 5 mm

Application

1) Substrate preparation

Derust the exposed reinforcing steel in accordance with DIN EN ISO 12944-4 up to preparation grade Sa 2½. The derusted reinforcing steel must be free from dust and grease.

2) Protection against corrosion

no separate protection against corrosion of the reinforcing steel is required.

3) Reprofiling

The concrete substrate must be adequately wetted before applying StoCrete SM P (first time about 24 hours beforehand). At the time of application, however, it must be dry to the point that it just appears slightly damp.

Pre-fill the local areas of spalling with StoCrete SM P, then carry out reprofiling wet on wet. Apply manually using a bucket trowel, spatula, or plastering trowel. To ensure a good adhesive bond, always work wet on wet.

Please note: Once the reaction or stiffening has started, do not add any more water to dilute StoCrete SM P.

Consumption of reprofiling mortar: approx. 19 kg/m² per cm of spalling depth/layer thickness (mixed material)

For full-surface application as a fairing coat, 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.

In the final step, smooth the surface. Rub out spatula strokes with a sponge; when doing so, do not add any more water.

Consumption of fairing coat: approx. 1.9 kg/m² per mm of layer thickness (mixed material)

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: 2001-07, the B8 data sheet "Nachbehandlung von Beton" on the curing of concrete (11.2002) published by the Bauberatung Zement, and ZTV-ING (2006-07) (Additional technical terms of contract and guidelines for civil engineering).

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Note:

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

A uniform colour shade of the mortar surface is not possible due to the application method.

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.

Note the information in ZTV-W LB 219 (2013) (German only).

Drying, curing, ready for next coat

At +20 °C and 65 % relative humidity, over-coatable with:
Mineral slurry: after 4 hours
Mineral fairing coat: 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

In case of concrete cover < 10 mm, select an elastic surface protection system. The Declaration(s) of Conformity can be obtained from the StoCretec Technisches InfoCenter
For general application notes, see www.stocretec.de (Products) and in the latest issue of the "Technical Data Sheets" manual, in the appendix.

Delivery

Article number	Name	Container
00789-001	StoCrete SM P	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. 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.

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Identification

Product group Repair mortars

Safety

This product is subject to compulsory labelling in accordance with the current EU regulation.
Observe the Safety Data Sheet!
Safety instructions refer to the ready-to-use, unapplied product.

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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