

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 the repair of concrete structures (concrete, reinforced concrete, and lightweight concrete)
- as a fairing coat (3-5 mm)

Properties

- polymer-modified, cementitious concrete repair product (PCC / RM)
- very good adhesive strength on a concrete substrate
- very good application overhead
- very good non-sag properties
- no separate tack coat necessary
- rapidly curing
- can be quickly over-coated
- no separate protection against corrosion necessary

Information/notes

- not suitable 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	EN 1542	> 0,8 MPa	
Compressive strength	EN 12190	25 MPa	
Flexural strength	TP BE-PCC	6 MPa	
Static modulus of elasticity	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

Requirements

Requirements on the substrate:
The concrete substrate must be load-bearing and free from native and foreign substances that could interfere with adhesion, as well as from corrosion-promoting components (e.g. chlorides). Remove less strong layers and laitance.

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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.

Tensile strength: ≥ 0.7 MPa

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: $+5^\circ\text{C}$

Highest application temperature: $+30^\circ\text{C}$

Time for application

At $+10^\circ\text{C}$: approx. 30 minutes

At $+20^\circ\text{C}$: approx. 15 minutes

at $+30^\circ\text{C}$: 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, 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

1,7

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

full-surface fairing coat: 3 - 5 mm

Application

1) Substrate preparation

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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).

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

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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 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 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
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.
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

GISCODE

ZP1

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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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