

Technical Data Sheet

StoCrete TF 204

Fairing coat, polymer-modified, cementitious,
layer thickness 1-3 mm



Characteristics

Area of application

- as a scratch coat and levelling coat for protecting and repairing concrete structures

Properties

- polymer-modified, cementitious fairing coat (PCC/RM)
- very good adhesive strength on a concrete or concrete repair product substrate
- very good application properties
- provides highly effective protection when exposed to ice and salt
- low modulus of elasticity

Information/notes

- product is in accordance with EN 1504-3
- not suitable for surfaces subject to foot or vehicle traffic
- polymer-modified, cementitious fairing coat in accordance with ZTV-ING, part 3, section 4
- as a scratch coat and levelling coat in the surface protection systems StoCretec OS 4.3, OS 5a.3 in accordance with TL/TP OS of the ZTV-ING
- component of the Sto Civil Engineering System 3 and Sto Civil Engineering System 4 in accordance with ZTV-ING
- class R2 in accordance with EN 1504-3

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Criterion	Standard / test specification	Value/ Unit	Notes
Bulk density of fresh mortar	EN 1015-6	1,9 kg/dm ³	
Maximum particle size		0,4 mm	
Bond strength	EN 1542	> 1,5 MPa	
Compressive strength	EN 12190	21 MPa	
Flexural strength	TP BE-PCC	7 MPa	
Static modulus of elasticity	EN 13412	14 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:

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The substrate must be load-bearing and free from native and foreign release agents. Remove less strong layers and laitance.

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

Average bond strength 1.3 N/mm²
 Lowest single bond strength value > 0.8 N/mm²

Preparations

Prepare the concrete substrate using a suitable method in accordance with ZTV-ING Part 3, section 4. Open pores and blow-holes sufficiently.

Before applying StoCrete TF 204, seal any gaps or cavities in the area of the concrete substrate close to the surface in line with the regulations on concrete repair.

Sufficiently pre-wet the application surfaces before applying the filler (at least 24 hours before the first application cycle).

The application surfaces must, however, have dried enough by the time of applying the filler so that they still only appear slightly damp. The substrate must be damp as described in the DAfStb (German) Repair Guideline.

Application

Application temperature

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

Time for application

At +5 °C: approx. 90 minutes
 at +23 °C: approx. 45 minutes
 at +30 °C: approx. 30 minutes

Mixing ratio

25 kg of material in accordance with the description / 5.2 - 5.5 l water = 1.0 : 0.208 - 0.220 parts by weight
 Silo technology: set sight glass to approx. 440 l water / h

Material preparation

Use a compulsory mixer or a hand mixer with overlapping, counter-rotating mixing paddles.

Decant the minimum water quantity, add the material while stirring, and mix to create a homogeneous mixture.

Allow the mixture to mature for approx. 3 minutes, then mix for approx. 30 seconds. Add water to adjust to the required consistency while observing the maximum amount of water.

Silo technology: 2-phase mixing tube / mixing shaft.

Consumption

Type of application	Approx. consumption	
per mm of layer thickness (without rebound)	1,9	kg/m ²

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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

Multi-layer use as a scratch coat with a subsequent levelling coat:

- 1) Substrate preparation
- 2) Scratch coat of StoCrete TF 204
- 3) Levelling coat of StoCrete TF 204

Layer thicknesses: min 1 mm, max. 3 mm, in parts max. 5 mm
Higher layer thicknesses are possible due to multi-layer work.

Application

Suitable for application by hand and with Sto silo technology using the dense flow process.

1) Substrate preparation

2) Scratch coat and levelling coat

When applying as a combined scratch coat and levelling coat, apply the scratch coat to seal pores and blow-holes on the slightly damp substrate and work it in thoroughly.

If filling in one application cycle, apply the PCC fairing coat StoCrete TF 204 manually or by machine on to the damp but setting scratch coat.

Ensure that the scratch coat is cured enough so that it can no longer be shifted when applying and working on the levelling coat.

If filling in two application cycles, leave the scratch coat rough.

Apply the levelling coat on to the scratch coat. Before applying the levelling coat, the scratch coat must be damp as described in the DAfStb (German) Repair Guideline. Between applying the scratch coat and the levelling coat, observe a waiting time of usually 1 day. During this time, cure the scratch coat.

As soon as the leveling layer has evenly hardened, the trowel marks can be smoothed with the foam rubber sponge or a plasterer's float covered with foam rubber. When rubbing down do not use any additional water.

3) 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

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e.V., and ZTV-ING (2014/12) (available in German only).

Note:

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

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

The foil must not touch the surface of the fairing coat.

A key part of curing is to adequately pre-wet the concrete substrate before application of the fairing coat so that the substrate is water-saturated and the fresh fairing coat does not extract mixing water. The substrate must be "damp", as described in the section on substrate preparation in the DAfStb (German) Repair Guideline.

4) Application technique

When applying manually, use a bucket trowel, spatula, and finishing trowel.

When applying by machine, use:

silo technology where mixing and conveying are integrated into the silo.

Hose type: diameter 35 mm; conveying distance max. 40 m.

Reprofiling sprayer with a 12 mm nozzle tube.

Compressor performance: at least 3 m³/min.

Mixing interruption at +25 °C: max. 30 min.

Other equipment for machine application:

all commercially available wet sprayer equipment, e.g. PFT-N2V and WM-Variojet.

Drying, curing, ready for next coat

Protective coating on levelling coat:

Before applying the protective coating, observe the following waiting times:

at +12 °C: StoCryl V 100: 2 d, StoCryl RB: 2 d, StoPox TU 100: 4 d

at +30 °C: StoCryl V 100: 1 d, StoCryl RB: 1 d, StoPox TU 100: 2 d

Levelling coat on levelling coat:

For multi-layer application by machine, a sufficient waiting time is necessary until the first layer is firm and cannot be shifted.

Cleaning the tools

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

Notes, recommendations, special information, miscellaneous

Suitable for application by hand and with Sto silo technology using the dense flow process.

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

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Technisches InfoCenter

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

Delivery

Packaging sack

Article number	Name	Container
04973-001	StoCrete TF 204	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 Fairing coat

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.

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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.

StoCretec GmbH
Gutenbergstr. 6
D-65830 Kriftel

Tel.: +49 6192 401-104
Fax: +49 6192 401-105
stocretec@sto.com
www.stocretec.de