Technical Data Sheet
StoCrete TV 304

Grout, cementitious, layer thickness 20-70 mm

Characteristics

Area of application

- for grouting building elements such as machinery, fixing bolts, crane rails, bridge bearings, steel cast in units, pocket foundation elements, and support recesses
- for grouting openings in concrete members
- in accordance with method 3.2 of EN 1504-9

Properties

- resistant to salt and frost
- impermeable to water
- consistent homogeneity
- high flowability
- very good application properties
- meets the requirements of class R4 in accordance with EN 1504-3

Technical data

Criterion	Standard / test specification	Value/ Unit	Notes
Bulk density of fresh mortar	EN 1015-6	2,3 kg/dm³	
Maximum particle size		4 mm	
Bond strength (28 days)		> 2,0 MPa	
Compressive strength	EN 1504-3		Class R 4
Flexural strength	TP BE-PCC	10 MPa	
Static modulus of elasticity	EN 1504-3		≥ 20 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.

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 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.

Application

Application temperature	Lowest application temperature: +5 °C Highest application temperature: +30 °C
Time for application	Pour and grout immediately after mixing.
Mixing ratio	25 kg of material in accordance with the description / 2.875 - 3.125 l water = 1.0 : 0.115 - 0.125 parts by weight
Material preparation	Decant water into a compulsory mixer and then add StoCrete TV 304 in the correct mixing ratio and mix (max. 400 rpm) for 2 minutes.
Consumption	Type of application — Approx. consumption per litre of cavity — 2,1 kg 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) Grouting with StoCrete TV 304 Grouting depth of StoCrete TV 304: 20 - 70 mm. Higher layer thicknesses are possible due to multi-layer work.
Application	pumping and conveying by machine possible 1) Prepare the substrate using a suitable mechanical process. Derust the exposed reinforcing steel in accordance with DIN EN ISO 12944-4 up to preparation grade Sa 2½ in accordance with DIN EN ISO 8501-1. The derusted reinforcing steel must be free from dust and grease. 2) Corrosion protection 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 times between the two application cycles: 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 up 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

Protection against corrosion is not necessary if the concrete covering is sufficiently thick and dense!

3) Grouting
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.

If formwork is necessary, ensure it is sufficiently stable. Before grouting, wet this with water or treat it with suitable release agents to prevent water extraction. This also makes it considerably easier to remove the formwork later.

Perform grouting starting from one side or corner. Ensure that the grouting process is not interrupted.

For larger-scale grouting work, pour the grout into the centre of the opening (hopper or hose).

Application by machine in the dense flow process is possible using a screw pump, e.g. WM-Variojet, PFT N2V, or similar.

If the surface is to be processed further, e.g. with a subsequent coating, scatter StoQuarz 0.3 - 0.8 mm over the grout once it is in place for improvement of the bonding properties.

Avoid stark vibrations in the surrounding areas in the first hours after placing StoCrete TV 304.

Consumption of StoCrete TV 304: approx. 2.3 kg per litre of void (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 1045-3:2012-03, 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).

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.

Cleaning the tools	Clean with water immediately after use. Hardened material can only be removed mechanically.
Notes, recommendations, special information, miscellaneous	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
00455-001	StoCrete TV 304	25 kg bag

Storage

Storage conditions	Store in dry conditions.
Storage life	See product 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.

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Identification

Product group	Grouts
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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