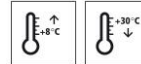


Technical Data Sheet

StoPox 590 EP

Epoxy resin coating, cementitious, skid- and slip-resistant, crack-bridging, for tested surface protection systems



Characteristics

Area of application

- interior areas and areas exposed to weathering
- wearing course in the tested surface protection system OS 8.15
- slip- and skid-resistant, crack-bridging floor coating for industrial flooring and traffic areas subject to medium to high mechanical stress

Properties

- very good adhesion to moderately damp, cement-based substrates
- tough and durable surface
- slip- and skid-resistant

Information/notes

- product is in accordance with EN 1504-2
- product is in accordance with EN 13813

Technical data

Criterion	Standard / test specification	Value/ Unit	Notes
Bond strength (28 days)	EN 1542	> 2.0 MPa	
Flexural strength (28 days)	EN ISO 178	> 30 MPa	
Density (mixture 23 °C)	EN ISO 2811	1.52 - 1.62 g/cm ³	

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:

In the case of the tested surface protection system, the substrate must be dry. Dry in accordance with the definition of the DAfStb (German) Repair Guideline 2001-10, but depending on the compressive strength class. Residual moisture may amount to max. 4 wt% for concrete in strength classes up to C30/37 and max. 3 wt% for C35/45 concrete, measured with a calcium carbide meter.

For uses deviating from the tested surface protection system, the substrate can be dry or damp.

Dry or damp in accordance with the definition in the DAfStb (German) Repair

Technical Data Sheet

StoPox 590 EP

Guideline 2001-10

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

Lowest single bond strength value 1.0 N/mm²
Average bond strength 1.5 N/mm²

Preparations Prepare the substrate using a suitable mechanical process such as shot-blasting, milling and then shot-blasting, or abrasive blasting.

Application

Application temperature Lowest application temperature: +8 °C
highest application temperature: +30 °C
Maximum approved relative humidity 85 %

Time for application At +10 °C: approx. 120 minutes
At +23 °C: approx. 60 minutes
At +30 °C: approx. 30 minutes

Mixing ratio Component A : component B = 100.0 : 14.3 parts by weight

Material preparation Component A and Component B are supplied in the correct mixing ratio and should be mixed in accordance with the following instructions. Stir component A, then add all of component B.
Mix thoroughly with a slow-running paddle mixer (max. 300 rpm) until a homogeneous, streak-free compound develops. It is also vital to stir thoroughly at the sides and the bottom in order to evenly distribute the hardener. Mixing time is at least 3 minutes.
After mixing, pour the compound into a clean container and mix again.
Do not apply from the delivery container!

The temperature of the individual components must be at least +15 °C when mixing.

Consumption	Type of application	Approx. consumption	
	per mm layer thickness	1.6	kg/m ²

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 Scatter coating for medium mechanical stress
1) Substrate preparation

Technical Data Sheet

StoPox 590 EP

- 2) If required, prime with e.g. StoPox 452 EP/StoPox GH 205
- 3) Scattering
- 4) Scatter coating StoPox 590 EP
- 5) Sealing coat of StoPox DV 100

Surface protection system OS 8.15

- 1) Substrate preparation
- 2) Prime coating of StoPox GH 502
- 3) Wearing course of StoPox 590 EP
- 4) Sealing coat of StoPox DV 100

Application

Scatter coating for medium mechanical stress, skid- and slip-resistant, crack-bridging

- 1) Substrate preparation

- 2) Prime coating

A prime coating is generally not necessary, only in the case of highly absorbent substrates.

If required, flood apply the StoPox GH 205 / StoPox 452 EP primer with a rubber squeegee and evenly spread it by subsequent rolling.

Avoid the formation of puddles.

Consumption: approx. 0.2 - 0.4 kg/m², depending on the roughness of the substrate

- 3) Scatter with StoQuarz 0.3 - 0.8 mm. Consumption: approx. 0.5 - 1.0 kg/m²

- 4) Scatter coating

Apply StoPox 590 EP, unfilled. Material consumption increases for depth thicknesses > 0.5 mm.

Apply the material with a squeegee (48 or 95 notching, Sto tool catalogue), evenly spread it, and de-air it using a spiked roller.

Consumption: approx. 2 kg/m² (minimum consumption)

Scatter the fresh coating abundantly with StoQuarz 0.3 - 0.8 mm or StoDurop 0.6 - 1.2 mm, Röhrig Granit.

Consumption of StoQuarz: approx. 4 - 5 kg/m²

Consumption of kiln-dried granite chippings: approx. 8 - 10 kg/m²

Address:

RÖHRIG Granit, D-64631 Heppenheim-Sonderbach, PO box 1347

Telephone (+49 62 52) 70 09 - 0, fax (+49 62 52) 70 09 - 11

Email: info@roehrig-granit.de, internet: <http://www.roehrig-granit.de>

Sweep or suction clean the surplus sand not integrated.

Technical Data Sheet

StoPox 590 EP

5) Apply a sealing coat of e.g. StoPox DV 100

Apply the sealing coat using a rubber squeegee and spread it evenly by subsequent rolling. Avoid the formation of puddles.

Consumption: approx. 0.6 - 1.0 kg/m², depending on the scattering

Surface protection system OS 8.15

1) Substrate preparation

2) Prime coating

Flood apply the mixed material with a rubber squeegee and then evenly spread it by rolling. Avoid the formation of puddles.

Consumption of StoPox GH 502: approx. 0.2 - 0.3 kg/m², depending on the absorption capacity of the substrate.

Scatter the fresh prime coating with StoQuarz 0.3 - 0.8 mm, grain by grain. Do not scatter in excess.

Quartz consumption 0.3 - 0.8 mm: approx. 1.0 kg/m²

3) Wearing course

Apply StoPox 590 EP, unfilled. Apply the material with a squeegee (48 or 95 notching, Sto tool catalogue), evenly spread it, and de-air it using a spiked roller.

Consumption of StoPox 590 EP: approx. 2.5 kg/m²

Scatter StoQuarz 0.3 - 0.8 mm in excess.

Consumption of quartz 0.3 - 0.8 mm: approx. 4.0 - 5.0 kg/m²

Remove the quartz sand which has not been integrated by sweeping or suction cleaning.

4) Sealing

Apply the sealing coat using a foam rubber squeegee and then evenly spread it by rolling. Avoid the formation of puddles.

Consumption of StoPox DV 100: approx. 0.6 - 0.8 kg/m²

Drying, curing, ready for next coat

Reworking time:

At +10°C: approx. 24 h

At +23°C: approx. 16 h

At +30°C: approx. 12 h

Cleaning the tools

StoCryl VV / StoDivers EV 100

Notes, recommendations, special information, miscellaneous

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. The Declaration(s) of Conformity can be obtained from the StoCretec Technisches InfoCenter

The abrasion resistance class specified in the CE marking refers to the smooth, not scattered covering.

Technical Data Sheet

StoPox 590 EP

Delivery

Colour shade light grey
not a RAL colour shade
depending on the sealing

Packaging pail and tin

Article number	Name	Container
03781/003	StoPox 590 EP Set	30 kg set

Storage

Storage conditions Store in dry and frost-free conditions; avoid direct sunlight.

Storage life In the original container until ... (see packaging).

Identification

Product group Coating

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.

Practical guide for dealing with epoxy resins: "Sicherer Umgang mit Epoxidharzen in der Bauwirtschaft".

And

Test report on the protective action of chemical protective gloves against epoxy resin coatings: "Handschuhe für lösemittelfreie Epoxidharz-Systeme" and "Schutzhandschuhe: Richtig anwenden"

[Www.bgbau.de/gisbau/fachthemen/epoxi](http://www.bgbau.de/gisbau/fachthemen/epoxi)

Published by:

Berufsgenossenschaft der Bauwirtschaft

Hildegardstrasse 28-30, 10715 DE-Berlin

Tel. (+49) 30 85781-0, Fax. (+49) 30 85781-500, www.bgbau.de

Guidelines for the planning of building site facilities: "Wirtschaftliche and sichere Baustelleneinrichtung"

Published by:

Bundesanstalt für Arbeitsschutz und Arbeitsmedizin (BAuA)

Friedrich-Henkel-Weg 1-25, 44149 DE-Dortmund

Tel. (+49) 231 9071-2071, Fax. (+49) 231 9071-2070

[Www.BAuA.de](http://www.BAuA.de)

Technical Data Sheet

StoPox 590 EP

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.

StoCretec GmbH
Gutenbergstr. 6
D-65830 Kriftel

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