

Technical Data Sheet

StoPox TEP MultiTop

Epoxy coating for increased requirements, tested and approved surface protection systems for traffic structures



Characteristics

Area of application

- interior areas and areas exposed to weathering
- as waterproofing for floor areas subject to vehicle traffic in multi-storey car parks and underground car parks
- hwO (main effective surface protection layer) of the tested multi-storey car park surface protection systems StoCretec OS 11 a.5 and StoCretec OS 11 b.5
- as a wearing course in the StoCretec OS 10.2 surface protection system

Properties

- resistant to oils and fuels
- high wear resistance
- dynamically crack-bridging

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	
Shore hardness type A	DIN 53505-A/EN ISO 868	88 - 94	(Cured)
Viscosity (at 23 °C)	EN ISO 3219	4,000 - 6,000 mPa.s	Mixture
Density (mixture 23 °C)	EN ISO 2811	1.16 - 1.23 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

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

Dry in accordance with the definition of the DAfStb (German) Repair Guideline

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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.

Substrate temperature higher than +12 °C and 3 K above dew point.
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 shot-blasting, milling and then shot-blasting, or abrasive blasting.
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Application

Application temperature	Lowest application temperature: +12 °C Highest application temperature: +30 °C Maximum approved relative humidity 85 %
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Time for application	At +12 °C: approx. 75 minutes At +23 °C: approx. 45 minutes At +30 °C: approx. 25 minutes
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Mixing ratio	component A : component B = 100.0 : 22.2 parts by weight
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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.
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Consumption	Type of application	Approx. consumption	
	as a floating layer	2.3 - 2.5	kg/m ²
	as a wearing surface	1.9	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	crack bridging dual layer design (OS 11a): 1) Substrate preparation
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- 2) Prime coating of StoPox GH 530
- 3) Waterproofing membrane of StoPox TEP MultiTop
- 4) Covering and wearing layer of StoPox TEP MultiTop
- 5) Sealing coat of StoPox DV 100

crack bridging one layer design (OS 11b):

- 1) Substrate preparation
- 2) Prime coating of StoPox GH 530
- 3) Floating and covering layer with StoPox TEP MultiTop in one application cycle.
- 4) Sealing coat of StoPox DV 100

Application

crack bridging dual layer design (OS 11a):

- 1) Substrate preparation

- 2) Prime coating

Evenly apply the mixed primer to the prepared substrate using a rubber squeegee and then spread it evenly by rolling. Avoid the formation of puddles.

We recommend a scratch coat for roughness depths > 0.5 mm. Scatter the prime coating of StoPox GH 530 while it is still fresh with kiln-dried quartz sand 0.3 - 0.8 mm.

Consumption of StoPox GH 530: approx. 0.3 - 0.4 kg/m², depending on the roughness of the substrate

Scatter with kiln-dried quartz sand 0.3 - 0.8 mm: approx. 0.5 - 1.0 kg/m²
Please observe: do not scatter excessively, but grain by grain.

One day after applying the primer, remove the non-bound quartz sand.

- 3) Crack-bridging intermediate layer (hwo):

Use a squeegee with triangular notching to apply the mixed StoPox TEP MultiTop unfilled as a waterproofing membrane in the required layer thickness, at least 1.5 mm, and rework with a spiked roller in a criss-cross pattern to de-air.

Consumption of StoPox TEP MultiTop: approx. 1.3 kg/m² per mm of layer thickness

Note:

If you need to walk on the intermediate layer (main effective surface protection layer) in the OS 11 a.5 system when scattering or spiking the freshly applied wearing course, we recommend wearing spiked soles with blunt nails (e.g. Polyplan spiked shoes with blunt spikes 3800S), to avoid damaging the membrane.

- 4) Covering and wearing surface

After a waiting time of approx. 12 hours and max. 24 hours, apply the self-levelling

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mortar consisting of 1.0 parts by weight StoPox TEP MultiTop and 0.2 parts by weight kiln-dried quartz sand 0.1 - 0.5 in the required layer thickness.

Finally, scatter the entire surface with a surplus of kiln-dried quartz sand 0.6 - 1.2 mm. We recommend scattering surfaces subject to higher stress with DUROP or a Röhrig Granit product depending on the required graining.

Consumption of StoPox TEP MultiTop: approx. 1.05 kg/m² per mm of layer thickness

Kiln-dried quartz sand 0.1 - 0.5 mm: approx. 0.55 kg/m² per mm of layer thickness

Scatter with kiln-dried quartz sand 0.6 - 1.2 mm: approx. 3.5 kg/m²

Scattering with fire-dried granite gravel/Duropol: approx. 4-5 kg/m²

Address:

RÖHRIG Granit GmbH, Werkstrasse Röhrig 1, 64646 Heppenheim, Germany

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

E-mail: info@roehrig-granit.de, website: <http://www.roehrig-granit.de>

5) Sealing

Sealing coat is carried out with StoPox DV 100 after sweeping the scattered grain. Apply using a rubber squeegee and reroll with a short-pile roller in a criss-cross pattern (see the respective technical data sheets).

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

The consumption quantities and details on application of the surface protection system StoCretec OS 11a.5 and StoCretec OS 11b.5 can be found in the specifications of the application instructions (Appendix A) in the certificate of compliance of DIN V 18026.

crack bridging one layer design (OS 11b):

1) Substrate preparation

2) Prime coating

Evenly apply the mixed primer to the prepared substrate using a rubber squeegee and then spread it evenly by rolling. Avoid the formation of puddles.

We recommend a scratch coat for roughness depths > 0.5 mm. Scatter the still fresh priming coat of StoPox GH 530 with kiln-dried quartz sand 0.1 - 0.5 mm.

consumption StoPox GH 530: approx. 0.4 kg/m², depending on the roughness of the substrate

scatter with kiln-dried quartz sand 0.3 - 0.8 mm approx. 0.5 - 1.0 kg/m²

Please observe: do not scatter excessively, but grain by grain.

One day after applying the primer, remove the non-bound quartz sand.

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3) Floating and wearing layer

After a waiting time of approx. 12 hours and max. 24 hours, apply the self-levelling mortar consisting of 1.0 parts by weight StoPox TEP Multi Top and 0.4 parts by weight kiln-dried quartz sand 0.3 - 0.8 mm in the required layer thickness.

Finally, scatter the entire surface with a surplus of kiln-dried quartz sand 0.3 - 0.8 mm. We recommend scattering surfaces subject to higher stress with DUROP or a Röhrig Granit product depending on the required graining.

Consumption of StoPox TEP MultiTop: approx. 1.05 kg/m² per mm of layer thickness

Kiln-dried quartz sand 0.3 - 0.8 mm: approx. 0.55 kg/m² per mm of layer thickness

Scatter with kiln-dried quartz sand 0.3 - 0.8 mm: approx. 3.5 kg/m².

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

E-mail: info@roehrig-granit.de, website: <http://www.roehrig-granit.de>

4) Sealing

Sealing coat is carried out with StoPox DV 100 after sweeping the scattered grain. Apply using a rubber squeegee and reroll with a short-pile roller in a criss-cross pattern (see the respective technical data sheets).

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

The consumption quantities and details on application of the surface protection system StoCretec OS 11a.5 and StoCretec OS 11b.5 can be found in the specifications of the application instructions (Appendix A) in the certificate of compliance of DIN V 18026.

Note:

If there is a risk of rear moisture penetration, priming coat StoPox GH 502, which was tested according to RILI SIB DAfStB, can be used in the OS 11 systems as an alternative.

In addition to the environment temperature, the substrate temperature is vital for the application of reaction resins. Low temperatures generally delay the chemical reactions. This also prolongs application and over-coating times. At the same time the consumption per surface unit may rise as a result of the increasing viscosity. High temperatures accelerate chemical reactions, hence the above-mentioned times are reduced accordingly.

Any yellowing which occurs under UV stress does not impair the technical properties. This has especially to be observed with light shades.

Depending on exposure to chemicals, discolourations can occur. These do not, however, impair the technical function of the coating.

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Slight deviations in the colour shade are possible between different batches.

Drying, curing, ready for next coat	Reworking time: At +12°C: approx. 24 h At +23°C: approx. 14 h At +25°C: approx. 12 h
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Cleaning the tools	StoCryl VV / StoDivers EV 100
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Notes, recommendations, special information, miscellaneous	The Declaration(s) of Conformity can be obtained from the StoCretec Technisches InfoCenter 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 abrasion resistance class specified in the CE marking refers to the smooth, not scattered covering.
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Delivery			
Colour shade	grey		
Packaging	Pail		
	Article number	Name	Container
	14087/006	StoPox TEP MultiTop 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"
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Guidelines for the planning of building site facilities: "Wirtschaftliche and sichere Baustelleneinrichtung"

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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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