Technical Data Sheet
StoPox WHG Deck 110

EP coating, tested and approved water protection systems, electrically conductive

Characteristics

Area of application

- interior and exposed to the weather
- as a coloured, electrically conductive coating for industrial flooring (areas for the production, treatment, and use of water-polluting substances) exposed to mechanical and chemical stress
- as a top coat in the StoCretec WHG System 2 (Z-59.12.311)
- as a component of the StoFloor Cleanroom system 5 (StoFloor Cleanroom Elastic WHG Deck 110)

Properties

- very high resistance to chemicals
- electrically conductive (TRGS 727)
- crack-bridging up to 0.4 mm (in accordance with the national technical approval)
- suitable for vehicle traffic with Vulkollan and polyamide tyres
- sensitive to humidity while curing

Information/notes

- product is in accordance with EN 13813
- for water protection in accordance with § 62 German Federal Water Act (WHG)
- it is possible that some yellowing might occur in interior or exterior areas exposed to direct sunlight

Technical data

Criterion	Standard / test specification	Value/ Unit	Notes
Bond strength (28 days)	EN 1542	> 2.0 MPa	
Viscosity (at 23 °C)	EN ISO 3219	1,160 - 1,740 mPa.s	mixture
Shore hardness type D	DIN 53505-D/EN ISO 868	65 - 69	
Density (mixture 23 °C)	EN ISO 2811	1.16 - 1.24 g/cm³	

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.

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Substrate

Requirements

Requirements on the concrete substrate:
The substrate must be dry, load-bearing, and free from native and foreign release agents.
Remove less strong layers and laitance.

Dry in accordance with the definition of the DAfStb (German) Repair Guideline 2001-10, but depending on the compressive strength class. The moisture content may not exceed 4 CM per cent for concrete qualities up to C30/37 and max. 3 CM per cent for C35/45 concrete, measured with a calcium carbide meter.

Substrate temperature higher than +8 °C and 3 K above dew point.
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 shot-blasting, milling and then shot-blasting, or abrasive blasting.

Application

Application temperature

Lowest application temperature: +8 °C and 75 % relative humidity
Highest application temperature: +30°C and max. 80% relative humidity

Time for application

At +10 °C: approx. 60 minutes
At +23°C: approx. 25 minutes
At +30 °C: approx. 15 minutes

Mixing ratio

Component A : component B = 100.0 : 50.0 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	
as a top coat (up to 0.4 mm crack bridging)	2.5	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	StoCretec WHG System 2 1) Prime coating of StoPox WHG Grund 100 2) Scratch coat of StoPox WHG Grund 100 (optional) 3) Laying the StoDivers LB 100 conductive strips and grounding them. 4) Conductive layer of StoPox WHG Leit 110 5) Coating of StoPox WHG Deck 110
Application	StoCretec WHG System 2 (Z-59.12-311) 1) Substrate preparation 2) Prime coating Flood apply StoPox WHG Grund 100 with a foam rubber squeegee until the substrate is totally free of pores, and then evenly spread it by rolling. Avoid forming puddles. Consumption: approx. 0.3 - 0.6 kg/m², depending on the roughness of the substrate Rework in accordance with the time period indicated in the national technical approval. Do not scatter beforehand. In outdoor areas, sand the prime coating before applying the next coating. 3) Scratch coat (optional, for large substrate roughness) Fill StoPox WHG Grund 100 with 1 : 1 parts by weight of StoQuarz 0.1 - 0.5 mm and StoQuarz 0.01 mm (mixing ratio = 1 : 1). Apply the material using a smoothing trowel/squeegee with triangular notching and de-air with a spiked roller. Add StoDivers ST thixotropic additive if required. Consumption: StoPox WHG Grund 100 approx. 0.6 - 0.7 kg/m² per mm layer thickness Consumption: quartz sand mixture made of StoQuarz 0.1 - 0.5 mm and StoQuarz 0.01 mm approx. 0.6 - 0.7 kg/m² per mm layer thickness Determine the exact amount of thixotropic additive required at the project, depending on the temperature and slope of the surface. 4) Laying conductive strips and grounding them Affix self-adhesive copper strips (StoDivers LB 100) onto the cured prime coating at intervals of max. 10 m. They are then connected to ground via copper cables (copper strands in accordance with VDE 0165). We recommend lightly sanding these areas in order to achieve optimal bonding.

5) Bridging any joints (optional)
For surfaces that are separated from each other by joints, ground the areas separately or make an electrical connection between the adjacent areas.

To bridge the areas, lay a loop-shaped copper cable onto the prime coating or the existing plastic coating, fan out both ends and fix them using self-adhesive copper strips.

6) Conductive layer of StoPox WHG Leit 110
Dilute StoPox WHG Leit 110 with approx. 10 % water, apply it using a foam rubber squeegee or roller, and then re-roll.
Consumption: approx. 0.15 - 0.2 kg/m² unfilled
Check the functionality of the applied conductive layer by measuring the resistance to ground before applying the following top coat.
The resistance to ground may not exceed 50 kiloohms.

7) Coating of StoPox WHG Deck 110
Apply the material with a squeegee, evenly spread it, and de-air it immediately using a spiked roller (no waiting time).

consumption: approx. 2.5 kg/m²

Observe the consumption quantities and check at regular intervals during coating.

8) Testing the resistance to ground
Carry out the measurement in accordance with EN 1081.

Application on vertical surfaces:

1) Filler and levelling coat
StoPox WHG Grund 100, filling degree 1 : 1 parts by weight with StoQuarz (StoQuarz 0.01 mm/StoQuarz 0.1 - 0.5 mm), adding approx. 4 wt% StoDivers ST.

Consumption of StoPox WHG Grund 100: approx. 500 g/m²
Consumption of StoQuarz 0.01 mm: approx. 250 g/m²
Consumption of StoQuarz 0.1 - 0.5 mm: approx. 250 g/m²

2) Conductive layer consisting of StoPox WHG Leit 110, approx 0.2 kg/m²

3) Coating with StoPox WHG Deck 110 and up to max. 4 % of StoDivers ST filling agent

Note:
Full mechanical and chemical loading capacity: after 7 days.

Depending on the exposure to chemicals, discolourations can occur. These do not, however, impair the technical function of the coating.
Slight deviations in the colour shade are possible between different batches.

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In the case of light colour shades, the conductive fibres are more or less visible in the finishing coat after curing.
Any yellowing which occurs under UV stress does not have any effect on the technical properties of the coating.

Observe the information on consumption, application, and execution in the national technical approvals!

Drying, curing, ready for next coat	Reworking time: At +10°C: approx. 24 h At +23°C: approx. 18 h At +30°C: approx. 12 h
Cleaning the tools	StoCryl VV / StoDivers EV 100
Notes, recommendations, special information, miscellaneous	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. The abrasion resistance class specified in the CE marking refers to the smooth, not scattered covering.

Delivery

Colour shade	limited colour choice
Packaging	pail

Article number	Name	Container
04812/004	StoPox WHG Top 110 Set tinted	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).

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Certificates/approvals

	Z-59.12-311	StoCretec WHG System 2 National technical approval

Identification

Product group	Epoxy resin

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. Handling epoxy resins: “Praxisleitfaden für den Umgang mit Epoxidharzen”, (Practical guide for handling epoxy resins) and test report: “Prüfbericht zur Schutzwirkung von acht Chemikalienschutzhandschuhen gegenüber EP-Beschichtungen” (Test report on the protective effect of eight chemical protective gloves against EP coatings), Gloves: “Handschuhe für den Umgang mit lösemittelfreien Epoxidharzen” (Gloves for handling solvent-free epoxy resins), and Protective gloves: “Die richtige Anwendung von Schutzhandschuhen” (The correct use of protective gloves) Https://www.bgbau.de/themen/sicherheit-und-gesundheit/gefahrstoffe/umgang-mit-epoxidharzen/ Published by: BG BAU - Berufsgenossenschaft der Bauwirtschaft Hildegardstraße 29/30, 10715 DE-Berlin Tel. (+49) 30 85781-0, Fax. (+49) 800 6686688-37400, 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 9071-0, Fax. (+49) 231 9071-2454, E-mail: poststelle@baua.bund.de, homepage: www.baua.de

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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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