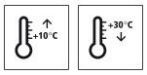
Technical Data Sheet
StoPox WL 110

Epoxy resin conductive layer, water-based, low-emission



Characteristics

Area of application

- interior areas and areas exposed to weathering
- on floor areas
- for cementitious substrates such as concrete or screed surfaces
- magnesite and calcium sulphate screeds
- as a conductive intermediate layer underneath electrically conductive finishing coats

Properties

- very good adhesion to the substrate
- very good bond with subsequent intermediate coats and finishes
- water-dilutable
- rapid curing at ambient room temperature
- very good horizontal conductivity
- low VOC emissions

Technical data

Criterion	Standard / test specification	Value/ Unit	Notes
Bond strength (28 days)	EN 1542	> 2.0 MPa	
Density (mixture 23 °C)	EN ISO 2811	1.20 - 1.40 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.

Substrate

Requirements

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

Dry or damp in accordance with the definition in the DAfStb (German) Repair Guideline 2001-10.

Substrate temperature higher than +8 °C and 3 K above dew point.

	Average bond strength 1.5 N/mm² Lowest single bond strength value 1.0 N/mm² Magnesite and calcium sulphate screeds should be discussed with our system adviser or the StoCretec Technisches InfoCenter.
Preparations	Substrate preparation: 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: +10 °C Highest application temperature: +30 °CMaximum approved relative humidity 75 %
Time for application	At +12 °C: approx. 120 minutes At +20 °C: approx. 60 minutes At +30 °C: approx. 45 minutes Reworking time: at +12 °C: approx. 24 h at +20 °C: approx. 18 h at +30 °C: approx. 14 h
Mixing ratio	Component A : component B = 100.0 : 20.0 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 conductive intermediate coat	0.15 - 0.2	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.

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Coating build-up	Conductive intermediate coat underneath electrically conductive, water-based StoCretec coatings, water vapour permeable. 1) Substrate preparation 2) Prime coating of StoPox WG 100 3) Levelling coat of StoPox WG 100 (for roughness depths > 0.5 mm) 4) Conductive layer of StoPox WL 110 5) Conductive strip StoDivers LB 100 6) Finishing coat of StoPox WL 113, StoPox WB 110 Conductive intermediate coat underneath electrically conductive, solvent-free StoCretec coatings 1) Substrate preparation 2) Prime coating, e.g. of StoPox GH 205 3) Levelling coat of StoPox GH 205 (for roughness depths > 0.5 mm) 4) Conductive layer of StoPox WL 110 5) Conductive strip StoDivers LB 100 6) Finishing coat of StoPox KU 411/611/613/615 or StoPur IB 510
Application	Conductive intermediate coat underneath electrically conductive, water-based StoCretec coatings, water vapour permeable. 1) Substrate preparation 2) Prime coating Dilute StoPox WG 100 with approx. 10 % water, apply with a rubber squeegee, and then spread evenly by rolling/brushing. Consumption: approx. 0.3 - 0.5 kg/m², depending on the roughness of the substrate. 3) Levelling coat if necessary (for roughness depths > 0.5 mm) Fill StoPox WG 100 approx. 1 : 0.5 to 1 : 0.8 with StoQuarz 0.1 - 0.5 mm. Apply the mixture using a rubber squeegee (notching 5 mm, Sto tool catalogue) and trowel it off sharply using a steel trowel. Consumption of mixed material: approx. 1.5 kg/m² and mm layer thickness Consumption of StoPox WG 100: approx. 0.8 - 1.0 kg/m² and mm of layer thickness 4) Conductive layer of StoPox WL 110 Dilute StoPox WL 110 with approx. 10 % water and apply it using a rubber squeegee or roller. Consumption: approx. 0.15 - 0.2 kg/m² Check the functionality of the applied conductive layer by measuring the resistance to ground before applying the subsequent top coat. The resistance to ground may not exceed 50 kiloohms. 5) Conductive strip StoDivers LB 100 Affix the self-adhesive conductive strips to the prepared substrate. A connection to

ground is required for every 100 m² of surface. Overlap the joints of the conductive strips by 5 cm. Pull the free ends of the StoDivers LB 100 conductive strips vertically up to the wall surfaces and connect them to ground.
Alternatively, connect them to ground using the StoDivers LS conducting set.
An electrician must determine the number and location of the connections to ground.
Only an electrician is permitted to ground the conductive strips/conducting set.

6) Finishing coat of StoPox WL 113, StoPox WB 110
Then apply the electrically conductive, water-based StoPox coatings StoPox WL 113 and StoPox WB 110 in accordance with the relevant Technical Data Sheets.

Conductive intermediate coat underneath electrically conductive, solvent-free StoCretec coatings
1) Substrate preparation

2) Prime coating
Apply StoPox GH 205 with a rubber squeegee, flooding until the substrate is totally free of pores, and then evenly spread the material by rolling/brushing. Avoid the formation of puddles.
Consumption: approx. 0.3 - 0.5 kg/m², depending on the roughness of the substrate.

3) Levelling filler (optional, for roughness depths > 0.5 mm)
Fill StoPox GH 205 either 1 : 1 to 1 : 3 parts by weight with Sto Zuschlag KS or with a mixture of StoQuarz 0.1 - 0.5 mm and StoQuarz 0.01 mm (50 : 50 parts by weight).
Consumption of StoPox GH 205: approx. 0.4 - 0.5 kg/m² and mm layer thickness
Consumption of Sto Zuschlag KS: approx. 0.4 - 1.5 kg/m² and mm of layer thickness
Consumption: approx. 1.8 kg/m² per mm layer thickness (filled)

4) Conductive layer
Dilute StoPox WL 110 with approx. 10 % water and apply it using a rubber squeegee or roller.
Consumption: approx. 0.15 - 0.2 kg/m²

Check the functionality of the applied conductive layer by measuring the resistance to ground before applying the subsequent top coat.
The resistance to ground may not exceed 50 kiloohms.

5) Conductive strip
Affix the self-adhesive conductive strips to the prepared substrate. A connection to ground is required for every 100 m² of surface. Overlap the joints of the conductive strips by 5 cm. Pull the free ends of the StoDivers LB 100 conductive strips vertically up to the wall surfaces and connect them to ground.
Alternatively, connect them to ground using the StoDivers LS conducting set.
An electrician must determine the number and location of the connections to

ground.
Only an electrician is permitted to ground the conductive strips/conducting set.

6) Finishing coat of StoPox KU 411/611/613/615 or StoPur IB 510
Then apply the electrically conductive and electrically dissipative StoPox and StoPur coatings in accordance with the relevant Technical Data Sheets.

Notes:
Ensure the conductive layer is not soiled before overcoating it.

Ensure sufficient ventilation when applying water-based coating systems. However, avoid draughts. Different layer thicknesses, too high humidity, and low temperatures can lead to visual and functional defects.

Cleaning the tools	Clean with water.
Notes, recommendations, special information, miscellaneous	For general application instructions, see www.stocretec.de (Products) and in the latest issue of the “Technical Data Sheets” manual, in the appendix.

Delivery

Colour shade	black
Packaging	pail and tin

Article number	Name	Container
01784/004	StoPox WL 110 Set	12 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	Water-based coating material
Safety	This product is subject to compulsory labelling in accordance with the current EU regulation. Observe the Safety Data Sheet! 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

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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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