# StoPox WL 110

EP conductive layer, water-based, low-emission





### Characteristics

### Area of application

- interior
- exposed to the weather
- on dry, cementitious substrates, e.g. concrete, screed
- on magnesite screeds, calcium sulphate screeds
- as a conductive intermediate layer underneath electrically conductive finishing coats

## **Properties**

- very good adhesion to the substrate
- very good bond for the subsequent intermediate coats and finishing coats
- water-dilutable
- cures at ambient room temperature
- very good horizontal electrical conductivity
- low VOC content

## 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/cm <sup>3</sup>	

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

#### General:

- Dry, load-bearing
- Free from separating, native, or foreign substances
- Remove weak layers.
- Remove any accumulation of fine concrete particles on the surface.

### Dry substrate:

- Depends on the compressive strength class
- Dry according to the definition contained in the DAfStb (German) Repair Guideline, issue 2001-10.



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Substrate temperature: at least +8 °C, 3 K above the dew point

Bond strength, average: 1.5 N/mm<sup>2</sup>

Bond strength, lowest single value: 1.0 N/mm<sup>2</sup>

### Screed:

- The condition of magnesite screeds and calcium sulphate screeds should be evaluated by qualified personnel.

## Preparations

1) Prepare all the above-mentioned substrates using a mechanical method, see "Substrate, requirements".

Example:

- Shot-blasting
- Milling followed by shot-blasting
- Abrasive blasting -

Application Application temperature	Application temperature:
	minimum temperature: +10 °C Maximum temperature: +30 °C
	Relative humidity: maximum: 75 %
Time for application	At +12 °C: approx. 120 minutes
	At +20 °C: approx. 60 minutes At +30 °C: approx. 45 minutes
Mixing ratio	component A : component B A : B 100.0 : 20.0 parts by weight
Material preparation	Notes:  - Component A and component B are supplied in the correct mixing ratio and should be mixed in accordance with the following instructions.  - Observe the order of the "Preparing material" steps.  - The material temperature is between +15 °C and +25 °C.  - The temperature of all components is between +15 °C and +25 °C.
	Mixing time:  - The length of the mixing time depends on the temperature of the material and the ambient temperature.  - Mix each container for the same length of time.
	Possible consequences if mixing times are too long or too short: - Mixing the product too long will shorten the time for application.



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	Pre	paring	the	material	ľ
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- 1) Stir component A.
- 2) Add all of component B.
- 3) Mix the components until the hardener is well distributed, the mixture is homogeneous, and a streak-free mass is produced.

Paddle mixer: slow running mixer, max. 300 rpm

Mixing time: at least 3 minutes

- 4) Ensure that the mixing equipment covers the bottom and the rim areas of the mixing container. The hardener must be evenly distributed.
- 5) Transfer the mixture to a clean container. Mix the components again.

### Consumption

### Type of application

Approx. consumption

as a conductive intermediate coat

0.12 - 0.15

kg/m<sup>2</sup>

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

- A: Conductive intermediate coat underneath electrically conductive, water-based StoCretec coatings, water vapour permeable.
- 1. Prepare the substrate.
- 2) Priming: StoPox WG 100
- 3) Apply a levelling filler: StoPox WG 100
- 4) Self-adhesive conductive strip: StoDivers LB 100
- 5) Apply a conductive layer: StoPox WL 110
- 6) Apply a finishing coat: StoPox WB 113, StoPox WB 110
- 7) Optionally, seal: StoPox WL 113
- B: Conductive intermediate coat underneath electrically conductive, solvent-free StoCretec coatings
- 1. Prepare the substrate.
- 2) Priming: StoPox GH 205
- 3) Apply a levelling filler: StoPox GH 205
- 4) Self-adhesive conductive strip: StoDivers LB 100
- 5) Apply a conductive layer: StoPox WL 110
- 6) Apply a finishing coat: StoPox KU 411, StoPox KU 611, StoPox KU 613, StoPox KU 615, StoPur IB 510
- 7) Optionally, seal: StoPur KV, StoPur WV 210, StoPox WL 113

## **Application**

- A: Conductive intermediate coat underneath electrically conductive, water-based StoCretec coatings, water vapour permeable.
- 1) Prepare the substrate.
- 2) Priming:

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- StoPox WG 100
- Dilute with approx. 10 % water.
- Apply the product. Tools: rubber squeegee
- Rework the product with a roller and spread evenly. Tools: short-pile roller sleeve
- Consumption: approx.  $0.3\text{-}0.5\ kg/m^2$ , depending on the roughness of the substrate
- 3) Optionally, apply a levelling filler:
- StoPox WG 100
- filling the product: 1:0.5 to 1:0.8 parts by weight, StoPox WG 100 : StoQuarz 0.1-0.5 mm

Apply the product. Tools: rubber squeegee, 5 mm notching

- Trowel off the material leaving a thin layer. Tools: smoothing trowel
- Consumption of StoPox WG 100 per mm layer thickness: approx. 0.8-1.0 kg/m<sup>2</sup>
- Consumption of the mixed material per mm layer thickness: approx. 1.5 kg/m<sup>2</sup>
- Note: Do not dilute the product.
- Apply a levelling coat for roughness depths > 0.5 mm.
- 4) Self-adhesive conductive strip:
- StoDivers LB 100
- Affix the product to the prepared substrate.
- Pull the free ends vertically up the wall surface and connect to ground.
- Overlap the joints of the conductive strip by 5 cm.
- Optional: Connection to ground is also possible using the conducting set. product: StoDivers LS

#### Note:

- A connection to ground is required for every 100  $\mbox{m}^2$  of surface.
- The number and location of the groundable points must be determined by an electrician.
- Only an electrician is permitted to ground connections of the conductive strips or conducting set.
- 5) Apply a conductive layer:
- StoPox WL 110
- Dilute with approx. 10 % water.
- Apply the product evenly. Tools: short-pile roller sleeve
- consumption: approx. 0.12-0.15 kg/m<sup>2</sup>

#### Note:

- Check the resistance to ground before applying the top coat. This ensures the functionality of the conductive layer.
- Resistance to ground: StoPox WL 110 maximum 50 kiloohm
- 6) Apply a finishing coat:
- StoPox WB 113, StoPox WB 110
- The application information is described in the Technical Data Sheet of the coating used.
- 7) Optionally, seal:
- StoPox WL 113

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B: Conductive intermediate coat underneath electrically conductive, solvent-free

StoCretec coatings

- 1) Prepare the substrate.
- 2) Priming:
- StoPox GH 205
- Dilute with approx. 10 % water.
- Flood apply the product without pores. Tools: rubber squeegee
- Rework the product with a roller and spread evenly. Tools: short-pile roller sleeve
- Consumption: approx. 0.3-0.5 kg/m², depending on the roughness of the substrate
- Note: Avoid the formation of puddles.
- 3) Optionally, apply a levelling filler:
- StoPox GH 205
- filling the product: 1:1 to 1:3 parts by weight, StoPox GH 205: Sto-Aggregate KS, or StoQuarz 0.1-0.5 mm, StoQuarz 0.01 mm
- consumption StoPox GH 205 per mm layer thickness: approx. 0.4-0.5 kg/m²
- consumption of Sto-Aggregate KS, StoQuarz per mm of layer thickness: approx. 0.4-1.5 kg/m²
- consumption: approx. 1.8 kg/m² per mm layer thickness (filled)
- Note: Apply a levelling coat for roughness depths > 0.5 mm.
- 4) Self-adhesive conductive strip:
- StoDivers LB 100
- Affix the product to the prepared substrate.
- Pull the free ends vertically up the wall surface and connect to ground.
- Overlap the joints of the conductive strip by 5 cm.
- Optional: Connection to ground is also possible using the conducting set. product: StoDivers LS

#### Note:

- A connection to ground is required for every 100 m<sup>2</sup> of surface.
- The number and location of the groundable points must be determined by an electrician.
- Only an electrician is permitted to ground connections of the conductive strips or conducting set.
- 5) Apply a conductive layer:
- StoPox WL 110
- Dilute with approx. 10 % water.
- Apply the product evenly. Tools: short-pile roller sleeve
- consumption: approx. 0.12-0.15 kg/m<sup>2</sup>

### Note:

- Check the resistance to ground before applying the top coat. This ensures the functionality of the conductive layer.
- Resistance to ground: StoPox WL 110 maximum 50 kiloohm



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### 6) Apply a finishing coat:

- StoPox KU 411, StoPox KU 611, StoPox KU 613, StoPox KU 615, StoPur IB 510
- The application information is described in the Technical Data Sheet of the coating used.
- Note: Ensure the conductive layer is not soiled before overcoating it.

### 7) Optionally, seal:

- StoPur KV, StoPur WV 210, StoPox WL 113

### Note:

Application of water-based coating systems:

- Ensure sufficient ventilation. Prevent draughts.
- Different material application, too high humidity, and low temperatures can lead to visual defects, e.g. differences in the gloss levels.

Drying, curing, ready for next coat	Reworking time: at +12 °C: approx. 24 h at +20 °C: approx. 18 h at +30 °C: approx. 14 h
Cleaning the tools	Clean tools with water immediately after use.
Notes, recommendations, special information, miscellaneous	Observe the general application instructions: - see www.stocretec.de, Products - see technical manual, notes
	Declaration of performance, CE marking: - declaration of performance: see www.stocretec.de
Delivery	

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. Protect from direct sunlight.		
Storage life	The product quality is best guaranteed in its unopened original container until its shelf life has expired. This information is included in the batch number on the container. Explanation of batch nos.: digit 1 = last digit of the year, digits 2 + 3 = calendar week, example: 2450013223 - storage life ends at week 45 in 2022		



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### See product 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.  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/
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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.



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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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