Technical Data Sheet

StoPox WL 118

Water-based, epoxy conductive intermediate layer

Characteristics

Area of application

- For Interior and exterior application on floor surfaces
- For cementitious substrates such as concrete or screed surfaces
- 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
- Rapid curing at ambient room temperature
- Low VOC emissions
- Fulfils requirements in accordance with DIN VDE 0100-410 (2007) in combination with selected finishing coats

Appearance

- Blackish

Technical Data

Criteria	Standard / test specification	Value / Unit	Notes
Density	EN ISO 2811	1.3 – 1.38 g/cm³	Mixture undiluted
Adhesion strength	ASTM D7234	> 1.5 N/mm²	

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 sound, dry, load bearing and free from native and foreign substances that have a separating effect. Remove less strong layers and laitance.

The maximum moisture content of the substrate should not exceed 4% by weight measured with the CM device.

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

Average adhesion strength >1.5 N/mm². Adhesion strength of the single smallest 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: +10°C
Highest application temperature: +30°C
Maximum 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

Mixing ratio

Component A : Component B = 100.0 : 20.0 parts by weight

Technical Data Sheet

StoPox WL 118

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 and agitate settlements with a trowel in 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 at least 3 minutes.

Do not apply from the delivery container!
After mixing, transfer the material into a clean container and stir it thoroughly once again.

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

Consumption

Type of application	Approx. consumption
As a conductive intermediate coat	0.15 – 0.20 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

Conductive intermediate coat underneath electrically conductive, water-based StoCretec coating, water vapour permeable.

1) Substrate preparation
2) Prime coating of StoPox WG 100
3) Scratch coat of StoPox WG 100 (optional, e.g roughness > 0.5 mm)
4) Installation of StoDivers LS
5) Conductive layer of StoPox WL 118
6) Finishing coat
7) Sealing coat (optional)

Conductive intermediate coat underneath electrically conductive, solvent-free StoCretec coatings:

1) Substrate preparation
2) Prime coating of StoPox GH 205
3) Scratch coat of StoPox GH 205 (optional, e.g roughness > 0.5 mm)
4) Installation of StoDivers LS
5) Conductive layer of StoPox WL 118
6) Finishing coat
7) Sealing coat (optional)

`Application

Conductive intermediate coat underneath electrically conductive, water-based StoCretec coating, water vapour permeable.

1) Substrate preparation

2) Prime coating
   Priming coat with StoPox WG 100 diluted approx. 10% with water depending on substrate and application conditions.
   Apply with a rubber spreader and distribute evenly by rolling / brushing down.
   Consumption: approx. 0.15 – 0.25 kg/m², depending on substrate roughness.

3) Scratch coat (optional for roughness depths > 0.5 mm)
   For very rough substrate, StoPox WG 100 undiluted filled with 1: 0.5 to 1: 0.8 parts by weight with Sto Filler 60/100 spread with a smoothing trowel and sharply screeded with a steel trowel.
   Over-coating when used as scratch coat: after approx. 6 - 8 hrs at 30°C
   Consumption of ready filled mixture: approx. 1.5 kg/m²/mm coating thickness.
   Consumption StoPox WG 100 : approx. 0.8 - 1.0 kg/m²/mm coating thickness

Technical Data Sheet

StoPox WL 118

4) Installation of StoDivers LS
Install and connect to ground using the StoDivers LS (conducting set). A connection to ground is required for every 100 m² of surface. No surface point should be more than 10 m away from a connection point. The connection points should be distributed as evenly as possible. If needed, bridge with conductive ribbon StoDivers LB 100.

Only an electrician is permitted to ground the conducting set.

5) Conductive layer of StoPox WL 118
Dilute StoPox WL 118 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 should be between the range of 200 kΩ < Rtg < 1 MΩ.

6) Finishing coat
Coat with StoCretec electrically conductive, water-based products (e.g StoPox WL 113 / StoPox WB 110) in accordance with the Technical Data Sheet.

7) Sealing coat (optional)
If in addition to the requirements in DIN VDE 0100-410, the additional ESD requirements in accordance with EN 61340-5-1 have to be fulfilled. Apply StoPox WL 113 in accordance with the Technical Data Sheet.

Conductive intermediate coat underneath electrically conductive, solvent-free StoCretec coatings.

1) Substrate preparation

2) Prime coating of StoPox GH 205
Apply in flood coat using a rubber squeegee and distributed evenly by rolling down to ensure complete sealing of all substrate pores. Avoid puddle formation.

Consumption: approx. 0.20 – 0.30 kg/m², depending on substrate and application conditions.

If the coating is not to be overcoated within 48 hours, the fresh primer should be scattered off with Sto Filler 60/100 or Sto Filler 30/60 (not to excess, but grain to grain).

Consumption: approx. 0.5 – 1.0 kg/m².

3) Scratch coat (optional for roughness depths > 0.5 mm)
For very rough substrate fill StoPox GH 205 1 : 1 by weight with Sto Filler 60/100

Consumption of StoPox GH 205 approx. 0.3 – 0.4 kg/m².

Consumption of Sto Filler : approx. 0.3 – 0.4 kg/m².

Consumption of ready filled mixture: approx. 0.6 – 0.8 kg/m².

4) Conductive layer of StoPox WL 118
Dilute StoPox WL 118 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 should be between the range of 200 kΩ < Rtg < 1 MΩ.

Technical Data Sheet

StoPox WL 118

5) Installation of StoDivers LS
Install and connect to ground using the StoDivers LS (conducting set). A connection to ground is required for every 100 m² of surface. . No surface point should be more than 10 m away from a connection point. The connection points should be distributed as evenly as possible. If needed, bridge with conductive ribbon StoDivers LB 100.

Only an electrician is permitted to ground the conducting set.

6) Finishing coat
Coat with StoCretec electrically conductive products (e.g StoPox KU 611/613/615) in accordance with the relevant Technical Data Sheets.

7) Sealing coat (optional)
For products StoPox KU 411/611 and StoPur IB 511, if in addition to the requirements in DIN VDE 0100-410, the additional ESD requirements in accordance with EN 61340-5-1 have to be fulfilled, apply StoPox WL 113, StoPur KV or StoPur WV 210 in accordance with the relevant Technical Data Sheet.

For the products StoPox KU 613 and StoPox KU 615, no additional sealing coat is required to fulfil the ESD requirements.

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.

Drying, curing, ready for next coat	Over-coating time : At 12°C : approx. 24 hours At 20°C : approx. 12 hours At 30°C : approx. 8 hours
Cleaning the tools	Tools must be cleaned immediately after use with clean water.
Notes, recommendations, special information, miscellaneous	Please consult the local sales office for further information and any site assistance required.

Delivery

Packaging

Name	Packing
StoPox WL 118	12 kg set

Storage

Storage conditions	Store in cool dry conditions; avoid direct sunlight.
Storage life	This product has a shelf life of 12 months from the manufacturing date.

Identification

Product group	Electro-Static Discharge (ESD)
Safety	Please refer to Safety Data Sheet.

Technical Data Sheet

StoPox WL 118

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 www.sto-sea.com.

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