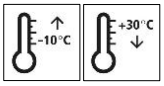
Technical Data Sheet

StoPox KU 614

EP coating, electrically conductive



Characteristics

Area of application

- Interior
- Coloured electrically conductive coating for industrial flooring with increased requirements for protection from electrostatic discharge

Properties

- High wear resistance
- Excellent flow properties
- Volume-conductive
- No usage of carbon fibres
- Fulfils requirements in accordance with EN 61340-5-1
- Fulfils requirements in accordance with ANSI/ESD S20.20
- Meets requirements in accordance with DIN VDE 0100-410 in combination with StoPox WL 118

Appearance

- Gloss

Information/notes

- Product is in accordance with EN 1504-2
- Product is in accordance with EN 13813

Technical Data

Criteria	Standard / test specification	Value / Unit	Notes
Density	EN ISO 2811	1.35 - 1.45 g/cm³	Mixture
Adhesion strength	EN 1542	> 2.0 MPa	
Shore D hardness	DIN 53505-D/ ENISO 868	78 - 83	
Viscosity	EN ISO 3219	700 - 1,900 mPa.s	Mixture
Fire classification	EN 13501-1	B_{fl} – s1	

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 +10°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.

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Application

Application temperature

Lowest application temperature: +10°C
Highest application temperature: +30°C

Relative humidity:
maximum: 75 % at +12 °C
maximum: 85 % at +30 °C

Time for application

At +10°C : approx. 40 minutes
At +23°C : approx. 30 minutes
At +30°C : approx. 15 minutes

Mixing ratio

Component A : Component B = 100.0 : 30.0 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 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 coating	1.8 – 2.2 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.

Coating build-up

ESD Coating

1) Substrate preparation
2) Primer coat of StoPox GH 205
3) Scratch coat (optional, e.g roughness > 0.5mm)
4) Installation of StoDivers LS
5) Conductive layer of StoPox WL 110 or StoPox WL 118 (for requirements in accordance with DIN VDE 0100-410)
6) Finishing coat of StoPox KU 614

Application

ESD coating

1) Substrate preparation
2) Primer coat
   Apply StoPox GH 205 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, e.g roughness > 0.5mm)
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

Note:
It is important that the scratch coat is done very evenly and that the surface is free of dirt (such as roller lint, sand grains, dirt particles, insects or the like) that could be integrated in the coating.

It is therefore recommended to intermediately grind the levelled floor after it has hardened, and to thoroughly sweep off the occurrent sanding dust.

4) Installation of conductive set 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

5) Conductive layer
Dilute StoPox WL 110 or StoPox WL 118 (for requirements in accordance with DIN VDE 0100-410) 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 value must not exceed 5 x 10^4 Ohms when using StoPox WL 110.

If StoPox WL 118 is used, the resistance to ground should be between the range of 200 kΩ < Rtg < 1 MΩ

6) Finishing coat
Apply StoPox KU 614 with a squeegee (48 or 95 toothing). Ensure the material is evenly spread and de-air in a criss-cross pattern using a spiked roller.

Consumption: approx. 1.8-2.2 kg/m² (minimum consumption of 1.5kg/m² is possible if the substrate is levelled with a scratch coat)

Note:
1. For personal protection requirements in accordance with VDE 0100-410, instead of a conductive layer of StoPox WL 110, a conductive layer of StoPox WL 118 must be used.
2. Discolouring can occur depending on exposure to chemicals which do not, however impair the features of the coating.
3. Direct sunlight, high temperatures and draughts during application should be avoided.
4. Any yellowing which occurs under UV stress does not impair the technical properties.

Drying, curing, ready for next coat	Reworking time: At +23°C: approx. 15 - 48 hours At +30°C: approx. 12 - 48 hours Fully cured, earliest contact with water: after 7 days, at +23 °C
Cleaning the tools	Tools must be cleaned immediately after use with cleaning solvent.

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Notes, recommendations, special information, miscellaneous	Please consult the local sales office for further information and any site assistance required.

Delivery

Colour	RAL colour fan, limited colour choice

Packaging

Article No.	Name	Packing
04103/001	StoPox KU 614	30 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.

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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