

Technical Data Sheet

StoPox KU 614

EP coating, electrically conductive



Characteristics

Area of application

- interior
- as a coloured, electrically conductive coating for industrial flooring with increased requirements for protection from electrostatic discharge

Properties

- high wear resistance
- very good flow properties
- volume-conductive
- fulfils requirements in accordance with EN 61340-5-1
- 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

Technical data

Criterion	Standard / test specification	Value/ Unit	Notes
Bond strength	EN 1542	> 2,0 MPa	
Viscosity (at 23 °C)	EN ISO 3219	1.100 - 1.600 mPa.s	mixture
Shore hardness type D	DIN 53505-D/EN ISO 868	72 - 78	Intended for approx. RAL 7032
Density (mixture 23 °C)	EN ISO 2811	1,37 - 1,45 g/cm ³	

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

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- Dry substrate:
- Depends on the compressive strength class
- Dry in accordance with the definition in EN 1504-10

Moisture content:

- Measure the moisture content of the concrete substrate with a calcium carbide meter.
- Moisture content for concrete qualities up to C30/37: max. 4 per cent by weight
- Moisture content for concrete qualities up to C35/45: max. 3 per cent by weight

Substrate temperature: at least +10 °C, 3 K above the dew point Bond strength, average: 1.5 N/mm²

Bond strength, lowest single value: 1.0 N/mm²

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 % 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
A : B
100.0 : 30.0 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.

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- 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.

Preparing the material:

- 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 coating	1,8 - 2,2	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	1) Prepare the substrate. 2) Primer: StoPox GH 205 3) Levelling coat: StoPox GH 205 4) Self-adhesive conductive strip: StoDivers LB 100 5) Apply a conductive layer: StoPox WL 110, for requirements in accordance with DIN VDE 0100-410: StoPox WL 118 6) Apply the electrical conductive covering layer: StoPox KU 614		
Application	ESD coating with increased requirements:		
	1) Prepare the substrate. 2) Priming: - StoPox GH 205 - Flood apply the product without pores. Tools: rubber squeegee - Rework the product with a roller or rebrush and spread evenly. - coverage: approx. 0.2–0.3 kg/m², depending on the roughness of the substrate		

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- Note:

- Avoid the formation of puddles. Do not scatter the prime coating.
- waiting time until the subsequent coating: maximum 48 hours

3) Levelling coat:

- 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)

4) Self-adhesive conductive strip:

- StoDivers LB
- Affix the product to the prepared substrate.
- Pull the free ends vertically up the wall surface and connect to ground.
- Optional: can also be connected to ground using the conducting set. product: StoDivers LS
- A connection to ground is required for every 100 m² 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, StoPox WL 118 for requirements in accordance with DIN VDE 0100-410
- Dilute with approx. 10 % water.
- Apply the product evenly in a criss-cross pattern. Tools: nylon roller, pile height: 13-14 mm
- consumption: approx. 0.12-0.15 kg/m²
- 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 kilohm, StoPox WL 118 maximum 1 megaohm

6) Apply the electrical conductive covering layer:

- StoPox KU 614
- Apply the product. Tools: Sto-Upright Squeegee, notching (depending on coverage): 25, 95, or 67
- Roll the product evenly in a criss-cross pattern. Tools: spiked roller sleeve
- consumption: approx. 1.8-2.2 kg/m²
- Minimum coverage: 1.5 kg/m²

Notes:

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Fully cured (earliest contact with water): at +23 °C - after 7 days. Over-coatable at +23 °C: after 15-48 hours.

Application:

- Avoid direct sunlight, high temperatures, and draughts during application.

UV stress, colour shade deviation:

- Any yellowing which occurs under UV stress does not impair the technical properties.
- Exposure of the chemicals may cause discolouration, which does not, however, impair the technical function of the coating.

Personal protection requirements:

- For personal protection requirements in accordance with VDE 0100-410, use the StoPox WL 118 conductive layer.

Drying, curing, ready for next coat

Reworking time:
at +23 °C: 15-48 h

fully cured, earliest contact with water:
after 7 days, at +23 °C

Cleaning the tools

Clean tools with StoDivers EV 100 or StoCryl VV.

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

- The abrasion resistance specified in the declaration of performance refers to the smooth, not scattered covering.

Delivery

Colour shade

RAL colour fan, limited colour choice

Packaging

pail and tin

Article number	Name	Container
04103/001	StoPox KU 614 Set tinted	30 kg set

Storage

Storage conditions

Store in dry and frost-free conditions. Protect from direct sunlight.
Avoid temperatures above +25 °C.

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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
See product packaging

Identification

Product group Coating

GISCODE RE90
(formerly RE 30)

Safety

This product is subject to compulsory labelling in accordance with the current EU regulation.
Observe the 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 the Internet.

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