

Technical Data Sheet

StoPox KU 601

EP coating, resistant to chemicals and mechanical stress



Characteristics

Area of application

- interior and exposed to the weather
- as a coloured coating for industrial flooring exposed to mechanical and chemical stress
- as a component of StoFloor Cleanroom KU 601

Properties

- high chemical resistance according to the chemical resistance list
- high mechanical resistance
- for short-term cleaning +80 °C, if permanently wet max. +50 °C
- rapid curing at ambient room temperature
- high wear resistance
- free from additives which damage the lacquer

Appearance

- gloss

Information/notes

- product is in accordance with EN 1504-2
- various test certificates

Technical data

Criterion	Standard / test specification	Value/ Unit	Notes
Bond strength	EN 1542	> 2,0 MPa	
Flexural strength	EN ISO 178	> 50 MPa	
Viscosity (at 23 °C)	EN ISO 3219	1.800 - 2.800 mPa.s	mixture
Shore hardness type D	DIN 53505-D/EN ISO 868	76 - 82	Intended for approx. RAL 7032
Density (mixture 23 °C)	EN ISO 2811	1,50 - 1,58 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

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Requirements

The substrate must be dry, load-bearing, and free from native and foreign release agents.

Remove less strong layers and any scatter sand that has not been embedded.

Dry in accordance with the definition of the DAfStb (German) Repair Guideline 2001-10, but depending on the compressive strength class. The moisture content may not exceed 4 CM per cent for concrete qualities up to C30/37 and max. 3 CM per cent for C35/45 concrete, measured with a calcium carbide meter.

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

Average bond strength: 1.5 N/mm²

Bond strength, lowest single 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: +8 °C
max. approved relative humidity: 75 %
highest application temperature: +25 °C
max. approved relative humidity: 85 %

Time for application

at +8 °C: approx. 60 minutes
at +10 °C: approx. 40 minutes
At +25 °C: approx. 20 minutes

Mixing ratio

Component A : component B = 100.0 : 21.1 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

per mm layer thickness (unfilled)

1,5

kg/m²

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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

Industrial flooring / HBV facilities in accordance with § 62 WHG without crack bridging

- 1) Substrate preparation
- 2) Prime coating of StoPox GH 205
- 3) Levelling filler coating for roughness depths > 0.5 mm.
- 4) Covering coat of StoPox KU 601
- 5) Matting sealing coat of StoPox WL 150 transparent (optional)
- 6) StoDivers P 105 or StoDivers P 120 floor finish (optional)

Application

Industrial flooring/HBV facilities in accordance with § 62 WHG without crack bridging.

1) Substrate preparation

2) Prime coating of StoPox GH 205

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 forming puddles.

Consumption: approx. 0.2 - 0.3 kg/m², depending on the roughness of the substrate.

If not reworking the fresh prime coating within 48 hours, scatter StoQuarz 0.1 - 0.5 mm or StoQuarz 0.3 - 0.8 mm kiln-dried quartz sand over it (not excessively, but grain by grain).

consumption: approx. 0.5 - 1.0 kg/m²

3) Levelling filler coating (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: StoPox GH 205 approx. 0.4 - 0.5 kg/m² and mm of layer thickness

Consumption: Sto Zuschlag KS (StoQuarz) approx. 0.4 - 1.5 kg/m² and mm of layer thickness

Consumption: approx. 1.8 kg/m² per mm of layer thickness (filled)

4) Coating of StoPox KU 601

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Apply the mixed material with a squeegee (48 or 95 notching, Sto Tools Catalogue), evenly spread it, and de-air it using a spiked roller in a criss-cross pattern.

Consumption depending on the layer thickness:

Layer thickness up to 1 mm, unfilled:

Consumption: 1.5 kg/m² and mm of layer thickness

The minimum layer thickness depends on the substrate and the desired appearance/hiding power. On smooth substrates, layer thicknesses < 0.5 mm normally lead to surface defects.

Consumption: at least 0.8 kg/m² (smooth, ground substrate) RAL 7023 / RAL 7032

Layer thickness 1 - 2 mm: filling degree approx. 1 : 0.3 parts by weight with StoQuarz 0.1 - 0.5 mm Consumption: approx. 1.7 kg/m² and mm of layer thickness (total mixture)

Consumption of StoPox KU 601: approx. 1.3 kg/m² and mm of layer thickness

Consumption of StoQuarz 0.1 - 0.5 mm: approx. 0.4 kg/m²

Layer thickness 2-3 mm: filling degree approx. 1 : 0.5 parts by weight with StoQuarz 0.1 - 0.5 mm. Consumption: approx. 1.8 kg/m² and mm of layer thickness (total mixture)

Consumption of StoPox KU 601: approx. 1.2 kg/m² and mm of layer thickness
consumption of StoQuarz 0.1 - 0.5 mm: min. 0.6 kg/m²

At low material and object temperatures, material consumption per m² increases due to the rise in viscosity.

5) Matting sealing coat of StoPox WL 150 transparent (optional)

Dilute the mixed material with approx. 15 % water, mix again and apply using a nylon roller (pile length 13 - 14 mm) in a criss-cross pattern. 1 to 2 application cycles may be required.

Consumption: approx. 0.13 - 0.15 kg/m² per application cycle

We recommend decanting StoPox WL 150 transparent with a 25 cm roller and then rolling it in a criss-cross pattern using a 50 cm wide roller.

6) Floor finish using StoDivers P 105/StoDivers P 120 (optional)

When the industrial flooring is clean and has cured, evenly apply a thin layer of the floor finish. Apply the material using a pre-dampened mop. Leave the floor to dry sufficiently, approx. 20 - 30 min.

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Carry out the second application cycle at right angles (perpendicular) to the previous application. It is very important to observe the specified drying times between application cycles. Depending on the expected stress, several application cycles may be necessary.

Consumption: approx. 30 - 50 ml/m² per application cycle

Note:

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

Fully cured (earliest contact with water): at +23 °C - after 7 days.

Depending on the exposure to chemicals, discolourations can occur. These do not, however, impair the technical function of the coating.

Any yellowing which occurs under UV stress does not impair the technical properties.

Drying, curing, ready for next coat

Reworking time:
At +6 °C: approx. 24 hours
At +10 °C: approx. 16 hours
At +25 °C: approx. 8 hours

Cleaning the tools

StoCryl VV / StoDivers EV 100

Notes, recommendations, special information, miscellaneous

The declaration(s) of performance can be obtained from the StoCretec Technisches InfoCenter
General application instructions are available at www.stocretec.de and in the notes of the latest Technical Manual.

The abrasion resistance class specified in the CE marking refers to the smooth, not scattered covering.

If StoPox KU 601 is installed at temperatures below 15 °C, the surface may become visually brighter if it comes into contact with water during use. This is a purely visual effect and does not affect the technical properties of the product.

Visual changes cannot be ruled out in case of frequent temperature- and chemicals-related stress.

Delivery

Colour shade

RAL colour fan, wide colour shade variety

Packaging

two tins

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Article number	Name	Container
01455/019	StoPox KU 601 Set tinted	10 kg set
01455/012	StoPox KU 601 Set tinted	30 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 Plastic, high chemical resistance

GISCODE RE90

Safety

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

You will receive an EU Safety Data Sheet with your first order.

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/gefährstoffe/umgang-mit-epoxidharzen/>

Published by:

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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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