

Technical Data Sheet

StoPox BB OS

EP coating, industrial application, low-emission



Characteristics

Area of application	- interior - on floors - as a coloured standard coating for industrial flooring, e.g. automotive industry or food processing industry - as a coloured sealant in the StoCretec surface protection system OS 8 - as a component of StoFloor Cleanroom BB OS
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Properties

- medium resistance to chemical and mechanical stress
- for short-term cleaning +80 °C, if permanently wet max. +40 °C
- very good flow and de-airing properties
- 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	> 30 MPa	
Viscosity (at 23 °C)	EN ISO 3219	1.400 - 2.300 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	1,41 - 1,49 g/cm ³	
Abrasion resistance according to Taber device	EN ISO 5470-1	60 mg	CS 10/1000U/1000g, approx.

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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:
The substrate must be dry, load-bearing, and free from native and foreign release agents.
Remove less strong layers and laitance.

Dry in accordance with the definition in the DAfStb (German) Repair Guideline 2001-10. 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 +10 °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: +10 °C
max. approved relative humidity: 75 %

Highest application temperature: +30 °C
max. approved relative humidity: 85 %

Time for application

At +10 °C: approx. 50 minutes
At +20 °C: approx. 30 minutes
At +30 °C: approx. 15 minutes

Mixing ratio

component A : component B = 100.0 : 25.0 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 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.

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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, for a coating up to 1 mm	1,0 - 1,5	kg/m ²
	per mm layer thickness, for a coating of 1 - 3 mm	1,1	kg/m ²
	as a sealer, depending on the scatter grain	0,6 - 0,8	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	Industrial floor coating, smooth		
	1) Substrate preparation		
	2) Prime coating of StoPox GH 205 and scattering		
	3) Coating of StoPox BB OS (unfilled/filled depending on the layer thickness)		
	4) Matting sealing coat of StoPox WL 150 transparent (optional)		
	5) StoDivers P 105 or StoDivers P 120 floor finish (optional)		
	Industrial floor coating, slip-resistant		
	1) Substrate preparation		
	2) Prime coating of StoPox GH 205 / scattering		
	3) Coating of StoPox BB OS (unfilled/filled depending on the layer thickness) / scattering with StoQuarz		
	4) Sealing coat of StoPox BB OS or StoPox DV 100		
	Surface protection system OS 8, tested for rising moisture		
	1) Substrate preparation		
	2) Preparatory filler and surface protection layer of StoPox GH 502 or StoPox GH 532		
	3) Scatter a surplus of StoQuarz 0.3 - 0.8 mm		
	4) Sealing coat of StoPox BB OS		
	See the implementation instructions for the StoCretec surface protection systems OS 8.6 and OS 8.22		
Application	Industrial floor coating, smooth		
	1) Substrate preparation		

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2) Prime coating of StoPox GH 205

Flood-apply the mixed material with a rubber squeegee until the substrate is totally free of pores. Then evenly spread the material using a roller or brush. Avoid the formation of puddles.

consumption: approx. 0.3 - 0.5 kg/m², depending on the roughness of the substrate.

We recommend a levelling filler coating for roughness depths > 0.5 mm

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 of StoQuarz 0.1 - 0.5 mm: approx. 0.5 - 1.0 kg/m²

3) Coating of StoPox BB OS

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.

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

Coating up to 1 mm:

Consumption of StoPox BB OS: at least 1.0 - 1.5 kg/m²

Coating of 1 to 2 mm:

Consumption of StoPox BB OS: approx. 1.1 kg/m² and mm layer thickness

Consumption of StoQuarz 0.1 - 0.5 mm: approx. 0.5 kg/m² and mm layer thickness

Consumption of total mixture approx. 1.6 kg/m² and mm layer thickness

Coating of 2 to 3 mm:

Consumption of StoPox BB OS: approx. 1.1 kg/m² and mm layer thickness

Consumption of StoQuarz 0.1 - 0.5 mm: approx. 0.7 kg/m² and mm layer thickness

Consumption of total mixture approx. 1.8 kg/m² and mm layer thickness

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

Before overcoating with a water-based sealing coat, the surface of StoPox BB OS must be pre-treated with a green pad for optimum wetting.

Older surfaces must be cleaned thoroughly using a black pad and StoDivers GR.

Dilute the mixed material with approx. 15 % water, mix again, and apply with a nylon roller (pile height 13–14 mm) in a criss-cross pattern.

1 to 2 application cycles may be necessary.

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

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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.

5) 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 floor finish. Apply the material using a pre-dampened, lint-free mop. Leave the floor to dry sufficiently, approx. 20 - 30 min.

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

Industrial floor coating, slip-resistant

To increase slip resistance, scatter StoQuarz 0.3 - 0.8 mm or StoQuarz 0.6 - 1.2 mm over the fresh self-levelling coating. Other scatter materials such as DUROP, corundum, or granite sands are also possible.

Consumption of StoQuarz 0.3 - 0.8 or StoQuarz 0.6 - 1.2 mm: approx. 3.0 - 6.0 kg/m² depending on the layer thickness.

The quartz sand scattering increases the total layer thickness by at least 50 %. After curing, sweep or suction off any surplus, loose quartz sand using an industrial vacuum cleaner.

Sealing coat of StoPox BB OS / StoPox DV 100

Using StoPox BB OS as a sealant on scatter coatings is only possible in the following colour shades due to its limited hiding power: RAL 7001, 7023, 7030, 7032 7036, 7037, 7040, 7045, and 7046. Use StoPox DV 100 for other colour shades.

Use a rubber squeegee to apply and evenly spread the mixed material, and then roll it using a short-pile roller (Sto-Tool Catalogue) in a criss-cross pattern.

Consumption of StoPox BB OS (approx. RAL 7023, 7032, 7001): 0.6 - 0.8 kg/m² depending on the scatter grain

Consumption of StoPox DV 100: 0.6 - 1.0 kg/m² depending on the scatter grain

surface protection system OS 8

1) Substrate preparation

2) Preparatory filler and surface protection layer of StoPox GH 502 or StoPox GH 532

Use a squeegee (48 or 95 notching, Sto-Tool Catalogue) to apply the material and

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spread it evenly. In order to guarantee the required layer thickness, we recommend checking the consumption and layer thickness while the material is still fresh.

Consumption for roughness depths up to 0.5 mm: approx. 0.8 kg/m² of StoPox GH 502 filled 1 : 1 with quartz sand 0.1 - 0.5 mm, or 1.2 kg/m² of StoPox GH 532 filled 1 : 0.7 with quartz sand 0.1 - 0.5 mm

If there is a risk of rising moisture and strongly absorbent substrates, we recommend applying a primer in advance.

Consumption: approx. 0.3 kg/m² of StoPox GH 502 or approx. 0.4 kg/m² of StoPox GH 532

3) Scatter a surplus of StoQuarz 0.3 - 0.8 mm
Consumption: approx. 4 - 5 kg/m²

4) Sealing coat of StoPox BB OS

Apply and spread the mixed material using Sto-Rubber Squeegee Profi (art. no. 17400-005). Then roll it using Sto-Varnish Roller Nylon RS 13 (art. no. 08278-004).

Note:

The reduced hiding power of light colour shades (e.g. approx. RAL 7035) or brilliant colour shades (e.g. RAL 6018) can lead to a poor appearance. For light and special colour shades, we recommend consulting our Technical Information Centre to check whether there is an option to switch to a different product in the StoCretec programme.

We also recommend observing the implementation instructions for the respective surface protection system.

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

Depending on the exposure to chemicals, discolourations can occur. These do not, however, impair the technical function of the coating. At low material and object temperatures, material consumption per m² increases due to the rise in viscosity.

The full chemical and mechanical resistance is achieved at +23 °C after 7 days.

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

Drying, curing, ready for next coat

Reworking time:
At +10°C: approx. 24 h
At +23°C: approx. 14 h

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At +30°C: approx. 10 h

Cleaning the tools

Clean with StoCryl VV.

Notes, recommendations, special information, miscellaneous

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

The Certificates of Compliance for the surface protection systems are available from the StoCretec GmbH Technical Information Centre.
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.

Delivery

Colour shade

RAL colour fan, wide colour shade variety

Packaging

Pail

Article number	Name	Container
14152/141	StoPox BB OS Set tinted	15 kg set
14152/111	StoPox BB OS 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

Coating

GISCODE

RE90
(formerly RE 30)

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,

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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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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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Technical Data Sheet

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