

Technical Data Sheet

StoPur IB 500

PUR coating, viscoplastic



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Characteristics

Area of application

- interior
- as a coloured coating for industrial flooring, e.g. food processing industry
- on cementitious substrates
- on hard mastic asphalt screeds

Properties

- durable
- for short-term cleaning +80 °C, if permanently wet max. +40 °C
- structurally crack-bridging
- viscoplastic
- as a surface that is suitable for both foot and vehicle traffic

Appearance

- gloss

Information/notes

- sensitive to humidity while curing
- product is in accordance with EN 1504-2
- product is in accordance with EN 13813
- various test certificates

Technical data

Criterion	Standard / test specification	Value/ Unit	Notes
Bond strength	EN 1542	> 2,0 MPa	
Viscosity (at 23 °C)	EN ISO 3219	1.800 - 2.700 mPa.s	mixture
Shore hardness type D	DIN 53505-D/EN ISO 868	59 - 65	
Density (mixture 23 °C)	EN ISO 2811	1,43 - 1,52 g/cm ³	
Abrasion resistance according to Taber device	EN ISO 5470-1	52 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 concrete 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 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. When used on mastic asphalt, at least 75 % of the surface must consist of exposed aggregate grain. 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	Substrate preparation: Prepare the substrate using a suitable mechanical process such as shot-blasting, milling and then shot-blasting, or abrasive blasting.
Application	
Application conditions	Relative humidity must not exceed > 70 % during the coating work and the curing phase.
Application temperature	lowest application temperature: +10 °C Highest application temperature: +30 °C
Time for application	at +10 °C: approx. 70 minutes at +20 °C: approx. 40 minutes At +30 °C: approx. 25 minutes Reworking time: at +10 °C: approx. 24 h at +20 °C: approx. 16 h at +30 °C: approx. 12 h
Mixing ratio	component A : component B = 100.0 : 23.0 parts by weight
Material preparation	Component A and Component B are supplied in the correct mixing ratio and

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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 min. +15 °C when mixing.

Consumption	Type of application	Approx. consumption	
	per mm layer thickness (unfilled)	1,4	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 on mastic asphalt, medium mechanical stress

- 1) Substrate preparation
- 2) Priming coating of StoPur IB 500, unfilled
- 3) StoPur IB 500 coating
- 4) sealing coat StoPur WV 150, StoPur WV 200, or StoPox WL 150 (optional)
- 5) StoDivers P 105 or StoDivers P 120 floor finish (optional)

industrial floor coating on cementitious substrates, medium mechanical stress

- 1) Substrate preparation
- 2) StoPox GH 205 priming coat
- 3) StoPox GH 205 scratch coat
- 4) StoPur IB 500 coating
- 5) sealing coat StoPur WV 150, StoPur WV 200, or StoPox WL 150 (optional)
- 6) StoDivers P 105 or StoDivers P 120 floor finish (optional)

Application

Industrial floor coating on mastic asphalt, medium mechanical stress.

Coating requirement for mastic asphalt screeds: (hardness class at least IC 40 in accordance with EN 13813)

- 1) Substrate preparation
at least 75 % of the surface must consist of exposed aggregate grain, bond strength > 1.5 N/mm²

- 2) StoPur IB 500 priming coat
Trowel off StoPur IB 500 (unfilled) sharply over the exposed aggregate grain.

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A levelling coat is recommended for roughness depths > 0.5 mm.
 If not over-coated within the interval time (max. 24 h), sand the priming coat with quartz sand 0.3–0.8 mm or quartz sand 0.1–0.5 mm.
 coverage of StoPur IB 500: approx. 0.5–1.0 kg/m², depending on the substrate roughness
 coverage of StoQuarz 0.3–0.8 mm or StoQuarz 0.1–0.5 mm: approx. 0.5–1.0 kg/m²

3) StoPur IB 500 finishing coat

Apply StoPur IB 500 with a notched squeegee (notching 48 or 95, Sto tool catalogue) and ventilated using a spiked roller in a criss-cross pattern.
 for layer thicknesses > 1 mm StoPur IB 500 can be additionally filled with StoQuarz 0.1 - 0.5 mm (filling degree 1:0.3 parts by weight)
 The minimum layer thickness depends on the substrate and the desired appearance.

On smooth substrates, layer thicknesses < 0.5 mm normally lead to surface defects.

coverage of StoPur IB 500 (unfilled): approx. 1.8 - 2.2 kg/m²

4) sealing coat StoPur WV 150, StoPur WV 200, or StoPox WL 150 (optional)

Apply the respective sealing coat using a roller in a criss-cross pattern in order to obtain a glossy, silk matt, or matt, UV-resistant surface.

coverage: approx. 0.15–0.2 kg/m²

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 on cementitious substrates, medium mechanical stress.

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 the formation of puddles.

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If not reworking the fresh priming coat within 48 hours using StoPur IB 500, broadcast StoQuarz 0.1 - 0.5 mm over it (grain by grain).
consumption of StoPox GH 205: approx. 0.3 - 0.5 kg/m², depending on the roughness of the substrate
coverage of StoQuarz 0.1 - 0.5 mm: approx. 0.5 - 1.0 kg/m²

3) StoPox GH 205 scratch coat

Fill StoPox GH 205 approx. 1:1.5 parts by weight with a mixture of 50 % quartz sand 0.01 mm and 50 % StoQuarz 0.1–0.5 mm and apply it using a smoothing trowel or squeegee with triangular notching. Then de-air the coating using a spiked roller.

coverage of StoPox GH 205: approx. 0.7 - 0.8 kg/m²/mm of layer thickness

4) StoPur IB 500 finishing coat

Apply StoPur IB 500 with a notched squeegee (notching 48 or 95, Sto tool catalogue) and ventilated using a spiked roller in a criss-cross pattern. The minimum layer thickness depends on the substrate and the desired appearance.

On smooth substrates, layer thicknesses < 0.5 mm normally lead to surface defects.

coverage of StoPur IB 500 (unfilled): approx. 1.8 - 2.2 kg/m²

5) sealing coat StoPur WV 150, StoPur WV 200, or StoPox WL 150 (optional)

Apply the respective sealing coat using a roller in a criss-cross pattern in order to obtain a glossy, silk matt, or matt, UV-resistant surface.

coverage: approx. 0.15–0.2 kg/m²

6) StoDivers P 105/120 floor finish (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, 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

Notes:

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

A floor finish with StoDivers P 105/120 will increase the gloss level of matt sealing coats such as StoPur WV 150, StoPur WV 200, and StoPox WL 150.

StoPur IB 500 has a strong tendency to yellow under UV radiation.

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Lighter colour shades are particularly affected. Touch-ups and connections made to existing surfaces are therefore visible.
Applying a suitable sealing coat can improve UV resistance.
When working with polyurethanes, ensure that the material does not come into contact with water during application and curing, as this leads to reaction bubbles (foam formation).

Cleaning the tools	Clean with StoDivers EV 100 immediately after use.
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Notes, recommendations, special information, miscellaneous	Visual changes cannot be ruled out in case of frequent temperature- and chemicals-related stress. General application instructions are available at www.stocretec.de and in the notes of the latest Technical Manual.
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Delivery

Colour shade	wide colour shade variety, RAL colour fan
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Article number	Name	Container
09348/005	StoPur IB 500 Set RAL7035	30 kg set
09348/001	StoPur IB 500 Set tinted	30 kg set

Storage

Storage conditions	Store in dry and frost-free conditions. Protect from direct sunlight.
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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
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Identification

Product group	Coating
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GISCODE	PU40
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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.

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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