

Technical Data Sheet

StoPox TU 100

EP coating, water-based



Characteristics

Area of application

- as a rigid, mechanically highly resistant coating for the protection of concrete
- for concrete areas that are regularly subjected to intense cleaning
- as a coloured coating on the interior surfaces of tunnels
- as a coating on surfaces in interiors that are protected from direct solar radiation
- as a coating in accordance with EN 1504-2
- in line with methods 1.3, 2.2, 8.2 in accordance with EN 1504-2
- as a coating in a surface protection system
- as a coating in spray and splash zones
- surface protection system with additional requirements in accordance with ZTV-ING - Part 5 tunnel construction
- surface protection system OS 2 (OS B), OS 4 (OS C)
- Anti-Graffiti-System 1 (AGS 1) in accordance with ZTV-ING, TL/TP AGS concrete

Properties

- protection against ingress
- moisture control of concrete
- increasing resistivity
- high mechanical resistance
- very good adhesive bond
- good carbon dioxide impermeability (S_d value for $CO_2 > 50$ m)
- epoxy-resin-bound coating
- maximum resistance to soiling
- very good cleanability
- prevents the ingress of water and harmful substances dissolved in water
- gloss value in accordance with DIN EN ISO 2813 (measurement angle: 60°): 40-60
- wet-scrub resistance: class 1 in accordance with DIN EN ISO 13300
- cleanability: value 0 in accordance with DIN EN ISO 13300
- not suitable for foot traffic or surfaces subject to vehicle traffic

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Technical data

Criterion	Standard / test specification	Value/ Unit	Notes
Viscosity (at 23 °C)	EN ISO 3219	1.110 - 1.670 mPa.s	mixture
Density (mixture 23 °C)	EN ISO 2811	1,27 - 1,35 g/cm ³	mixture

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

Concrete:

- Load-bearing
- Free from substances that could interfere with adhesion
- Dry in accordance with the definition in EN 1504-10

System without fairing coat

- Bond strength in accordance with EN 1504-10: ≥ 0.8 MPa, lowest single value ≥ 0.5 MPa

System with mineral fairing coat

- Bond strength in accordance with EN 1504-10: ≥ 1.3 MPa, lowest single value ≥ 0.8 MPa

Existing coats:

- Cross cut test value in accordance with ppw < 2
- No cracks, spalling, or efflorescence

Preparations

System without fairing coat

- water blasting
- abrasive blasting
- Clean existing paint coats thoroughly

System with mineral fairing coat

- See Technical Data Sheet for the mineral fairing coat

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Application		
Application conditions	Material temperature during mixing: min. +15 °C, max. +25 °C Substrate temperature: min. +8 °C, max. +30 °C and 3 K above dew point Relative humidity at the start of application: max. 70 % Relative humidity during application: max. 85 % Observe whether there is any change to the temperature and relative humidity during application. Ensure adequate ventilation during application. Ensure there is no condensate on the surface while the material is curing. Different layer thicknesses, exceedingly high humidity ($\geq 85\%$), and exceedingly low temperatures ($< +8\text{ °C}$) can lead to visual defects.	
Application temperature	Lowest application temperature: +8 °C Highest application temperature: +30 °C	
Time for application	At +15°C: approx. 60 minutes	
Mixing ratio	component A : component B = 5.0 : 1.0 parts by weight	
Material preparation	Tools required: - slow-moving paddle mixer (speed: max. 300/rpm) 1) Stir component A. 2) Add all of component B. 3) Mix both components until a homogeneous mixture is obtained. 4) Transfer the mixture into a clean container and stir again. If only a partial quantity of component A and component B is used initially and the remainder is to be processed later, then shake or stir the container of component B again before use.	
Consumption	Type	Approx. consumption
		0,5 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	StoPox TU 100 is an element of the systems: - StoConcrete Protect Prime TU 100 1) Fairing coat: StoCrete TF 204 2) Coating: StoPox TU 100 (2 layers)	

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- 3) Optional: finishing coat of StoPur WV 60
 - StoConcrete Protect Classic TU 100
 - 1) Hydrophobic impregnation: StoCryl GW 100
 - 2) Coating: StoPox TU 100 (2 layers)
 - 3) Optional: finishing coat of StoPur WV 60
 - StoConcrete Protect Reno TU 100
 - 1) Priming coat: StoPox WG 100
 - 2) Fairing coat: StoPox WB 50
 - 3) Coating: StoPox TU 100 (2 layers)
 - 4) Optional: finishing coat of StoPur WV 60
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Application

- StoConcrete Protect Prime TU 100

- 1) Fairing coat: StoCrete TF 204

Tools required:

- bucket trowel, spatula, and/or finishing trowel
- sponge or Sto-Plasterer's Float with Expanded Natural Rubber Base fine

Apply StoCrete TF 204 to the tool and press into the prepared substrate using pressure with the edge of the tool. Move the tool in opposite directions to completely fill pores and blow-holes.

Apply StoCrete TF 204 wet-on-wet in the required layer thickness over the entire surface using slight pressure.

Smooth the surface using a smoothing trowel and allow to stiffen.

Finally, rub off the surface with a slightly damp sponge or use the Sto-Plasterer's Float with Expanded Natural Rubber Base.

coverage of StoCrete TF 204: 1.9 kg/m² per mm layer thickness

waiting time: 72 h - 96 h

- 2) Coating: StoPox TU 100 (2 layers)

Tools required:

- Sto-Varnish Roller Nylon RS13 or an airless sprayer

Test the sprayer and nozzle before use and adapt them to the conditions on site.

Layer 1:

Spray the mixed material with the Sto-Varnish Roller Cover Nylon RS13 on to the substrate or spray it on to the substrate with an airless sprayer.

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coverage of StoPox TU 100: 0.20 – 0.25 kg/m²
waiting time: 12 h - 24 h

Layer 2:
Prepare StoPox TU 100 again as described above.
Spray the mixed material with the Sto-Varnish Roller Cover Nylon RS13 on to the substrate or spray it on to the substrate with an airless sprayer.

coverage of StoPox TU 100: 0.20 – 0.25 kg/m²

Surfaces that are exposed to direct solar radiation:

3) Optional: finishing coat of StoPur WV 60

Apply StoPur WV 60 as a sealing coat. Spray the mixed material with the Sto-Varnish Roller Cover Nylon RS13 on to the substrate or spray it on to the substrate with an airless sprayer.
Can be diluted with up to max. 10 per cent by weight.

coverage of StoPur WV 60: approx. 0.2 kg/m²
waiting time at + 20 °C: 12 h

Cleaning the tools	Clean tools with water. If, for example, material is stuck to the nozzle, clean the tool with e.g. StoDivers EV 100 or StoCryl VV.
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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.
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Delivery

Colour shade	white, tintable in accordance with the RAL colour fan		
	Article number	Name	Container
	08584/002	StoPox TU 100 Set tinted	1440 kg set
	08584/001	StoPox TU 100 Set tinted	20 kg set

Storage

Storage conditions	Store in dry and frost-free conditions. Protect from direct sunlight.
Storage life	The product quality is best guaranteed in its unopened original container until its shelf life has expired. The first digit of the batch number is the final digit of the year. The second and third digits indicate the calendar week. Example:

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1450013223 - shelf life until end of calendar week 45 in 2021.
See product packaging

Identification

Product group Sealing coat

GISCODE RE20

Safety

This product is subject to compulsory labelling in accordance with the current EU regulation.
Observe the Safety Data Sheet!
Safety instructions refer to the ready-to-use, unapplied product.
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/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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