

Technical Data Sheet

StoPox WB 50

EP filler, water-based, layer thickness 0-4 mm



Characteristics

Area of application

- on walls in interiors and exteriors of e.g. tunnels, galleries, subways
- for filling pores and blow-holes and as a scratch and levelling coat over large areas to protect and repair concrete members
- as partial reprofiling of 4–10 mm after addition of approx. 0.5 per cent by weight of StoDivers ST
- as partial reprofiling of 10-20 mm after addition of approx. 1.0 weight percent of StoDivers ST and approx. 20 weight percent of StoQuarz 0.3-0.8 mm

Properties

- epoxy-resin-bound filler (PC)
- very high mechanical resistance
- very good adhesive strength on a concrete substrate
- very good non-sag properties
- excellent for filling pores and blow-holes
- very good application properties
- rapid curing, even at low temperatures $\geq +8^{\circ}\text{C}$
- water-based
- coating in accordance with EN 1504-2

Technical data

Criterion	Standard / test specification	Value/ Unit	Notes
Compressive strength	EN 12190	26 - 28 MPa	
Bond strength	EN 1542	> 1,5 MPa	
Compressive strength	EN 12190	20 - 22 MPa	7d/RT
Static modulus of elasticity	EN 13412	0,9 GPa	approx.
Viscosity (at 23 °C)	EN ISO 3219	4.100 - 6.100 mPa.s	mixture
Density (mixture 23 °C)	EN ISO 2811	1,47 - 1,55 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

Technical Data Sheet

StoPox WB 50

Requirements	- load-bearing - free from release agents - concrete - open pores close to the surface - Bond strength, average: 1.5 N/mm² Bond strength, lowest single value: 1.0 N/mm² - moisture content in accordance with EN 1504-10: dry
---------------------	---

Preparations	Substrate made of concrete - Abrasive blasting or water blasting at high pressure to remove the cement skin When deciding whether or not to keep old epoxy resin paint coats, check their load-bearing capacity.
---------------------	--

Application

Application conditions	Material temperature during mixing: min. 15 °C, max. 25 °C substrate temperature during application: see application temperature and 3 K above dew point
-------------------------------	--

Application temperature	Lowest application temperature: +8 °C Highest application temperature: +30 °C
--------------------------------	---

Time for application	At +15 °C: approx. 45 minutes
-----------------------------	-------------------------------

Mixing ratio	component A : component B = 3 : 2 parts by weight
---------------------	---

Material preparation	Tools required: - slow-moving paddle mixer (speed: max. 300/rpm) 1) Stir component A. 2) Add component B completely to component A. As an option, up to 20 per cent by weight of StoQuarz 0.1–0.2 mm can be added to StoPox WB 50. 3) Mix the components until a homogeneous mixture is obtained. 4) Transfer the mixture into a clean container and stir again. Application of partial reprofiling 4 - 10 mm: Add approx. 0.5 per cent by weight of StoDivers ST thixotropic additive to StoPox WB 50. The quantity of the required thixotropic additive depends on the temperature. 1) Prepare StoPox WB 50 as described above. 2) Add StoDivers ST to the mixture and mix again thoroughly. 3) Apply the material immediately.
-----------------------------	---

Technical Data Sheet

StoPox WB 50

Alternatively, the StoDivers ST can also be added to a component of the StoPox WB 50 and then both components (A and B) can be mixed.

Application of partial reprofiling 10 - 20 mm:
Add approx. 1.0 per cent by weight of StoDivers ST thixotropic additive and approx. 20 per cent by weight of StoQuarz 0.3–0.8 mm to StoPox WB 50. The quantity of the required thixotropic additive depends on the temperature.

- 1) Prepare StoPox WB 50 as described above.
- 2) Add StoDivers ST and StoQuarz 0.3-0.8 to the mixture and mix again thoroughly.
- 3) Apply the material immediately.

Alternatively, the StoDivers ST can also be added to a component of the StoPox WB 50 and then both components (A and B) can be mixed with StoQuarz 0.3–0.8 mm.

Consumption	Type of application	Approx. consumption	
	per mm layer thickness	1,5	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	coating on concrete and existing epoxy resin coatings, application on tunnels
	1) Substrate preparation 2) Optional: partial reprofiling using StoPox WB 50 depending on requirements 3) Optional: StoPox WG 100 priming coat 4a) scratch and levelling coat over large area with StoPox WB 50 (layer 1) 4b) filling pores and blow-holes over large area with StoPox WB 50 (layer 2) 5a) coating with StoPox TU 100 (layer 1) 5b) finishing coat of StoPox TU 100 (layer 2) 6) Optional: finishing coat of StoPur WV 60

Application	Coating on concrete and existing epoxy resin coatings
	1) Substrate preparation 2) Optional: partial reprofiling 4-10 mm: StoPox WB 50 + StoDivers ST partial reprofiling 10-20 mm: StoPox WB 50 + StoDivers ST + StoQuarz 0.3-0.8 mm 3) Optional: StoPox WG 100 priming coat Apply StoPox WG 100 in accordance with the relevant Technical Data Sheet.

Technical Data Sheet

StoPox WB 50

4a) scratch and levelling coat over large area with StoPox WB 50 + optional StoQuarz 0.1–0.2 mm (layer 1)
StoPox WB 50 should be applied by machine using a sprayer. For filling small areas, manual application is also possible.

4b) filling pores and blow-holes over large area with StoPox WB 50 (layer 2)
StoPox WB 50 should be applied by machine using a sprayer after the corresponding drying phase or on the following day. For filling small areas, manual application is also possible.

sprayer: e.g. screw pump with 650 l compressor performance + 8 mm nozzle with subsequent distortion and smoothing of the surface

or

airless sprayer, e.g. Graco Mark X HDA 639 or HDA 531 sprayer

drying time until the next layer of StoPox WB 50 at +20°C: approx. 12 hours

drying time until overcoatable with StoPox TU 100 at +20°C: approx. 8 hours

5a) coating with StoPox TU 100 (layer 1)

application of the StoPox TU 100 product Carried out in accordance with the technical data sheet.

5b) coating with StoPox TU 100 (layer 2) application of the StoPox TU 100 product Carried out in accordance with the technical data sheet.

6) Optional: finishing coat of StoPur WV 60

Apply StoPur WV 60 in accordance with the relevant Technical Data Sheet.

Please note:

Ensure sufficient ventilation when applying water-based coating systems. Different layer thicknesses, too high humidity ($\geq 85\%$), and too low temperatures ($< +8\text{ °C}$) can lead to visual defects. At the start of coating work, relative humidity should not be above 70 %. Monitor the climate during application. Ensure there is no condensate on the surface while the material is curing. Curing processes similar to cement-based fairing coats (keeping moist and covering with film and similar) are not required.

Cleaning the tools

Clean with water.

If any material adhesion occurs, for example on the nozzle, we recommend cleaning with e.g. StoDivers EV 100, StoDivers Xylac, or StoCryl VV.

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.

Technical Data Sheet

StoPox WB 50

Delivery

Colour shade white

Packaging pail and tin

Article number	Name	Container
00535/006	StoPox WB 50 Set	25 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 Intermediate coat

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/gefahrstoffe/umgang-mit-epoxidharzen/>

Published by:

BG BAU - Berufsgenossenschaft der Bauwirtschaft

Hildegardstraße 29/30, 10715 DE-Berlin

Tel. (+49) 30 85781-0, Fax. (+49) 800 6686688-37400, www.bgbau.de

Guidelines for the planning of building site facilities: "Wirtschaftliche and sichere

Technical Data Sheet

StoPox WB 50

Baustelleneinrichtung"

Published by:

Bundesanstalt für Arbeitsschutz und Arbeitsmedizin (BAuA)

Friedrich-Henkel-Weg 1-25, 44149 DE-Dortmund

Tel. (+49) 231 9071-0, Fax. (+49) 231 9071-2454,

E-mail: poststelle@baua.bund.de, homepage: www.baua.de

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.

StoCretec GmbH
Gutenbergstr. 6
D-65830 Kriftel

Tel.: +49 6192 401-104
stocretec@sto.com
www.stocretec.de