

# Technical Data Sheet

## StoPur BA 2000

Polyurethane spray-on waterproofing



### Characteristics

- Area of application**
- As waterproofing layer under polyurethane protection layers for surfaces on concrete substrates which are subject to foot and vehicle traffic.
  - Basement structures
  - Bridges
  - Concrete floor slabs
  - Concrete roofs
  - Deck slabs
  - Subways
  - Tunnels

### Properties

- Permanently elastic
- Crack bridging
- Very good bond to the primer and subsequent protection layer
- Very high degree of heat resistance
- High reactivity

### Application method

- Not suitable for manual application
- Tested in accordance with TL/TP-BEL-B3

### Technical Data

Criteria	Standard / test specification	Value / Unit	Notes
Shore hardness Type A	EN ISO 868	75	
Tear resistance	DIN 53504	6.5 MPa	
Elongation at break	DIN 53504	600 %	
Density (mixture 23 °C)	EN ISO 2811	0.92 – 0.98 g/cm <sup>3</sup>	

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.

### Application

#### Requirements

Requirements on the substrate:

The substrate must be dry, load-bearing, and free from native and foreign substances that have a separating action. Remove less strong layers and laitance.

Dry in accordance with the definition in ZTV-ING (German directive), but depending on the compressive strength class. Residual moisture may amount to max. 4 wt % for concrete in strength classes up to C30/37 and max. 3 wt % for C35/45 concrete, measured with a calcium carbide meter.

Average bond strength 1.5 N/mm<sup>2</sup>

Bond strength of the single smallest value 1.0 N/mm<sup>2</sup>

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**Preparation**                      Substrate preparation:  
 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  
 Highest application temperature: +30 °C

Consumption	Type of application	Approx. consumption
		As waterproofing

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**                      Liquid plastic waterproofing on the concrete carriageway deck under a mastic asphalt protection layer (in accordance with ZTV-ING part 7 section 3)

- 1) Substrate preparation
- 2) Prime coating of StoPox BV 100
- 3) Scratch coat
- 4) Bonding agent StoPur VS 70
- 5) Waterproofing layer of StoPur BA 2000
- 6) Tack coat of StoPur VBS 2000
- 7) Mastic asphalt protection layer

**Application**                              Observe the instructions for implementation.  
 Liquid plastic waterproofing on the concrete carriageway deck under a mastic asphalt protection layer (in accordance with ZTV-ING part 7 section 3)

- 1) Substrate preparation
- 2) Prime coating of StoPox BV 100  
 Floods apply the mixed material to the substrate and spread it using a foam rubber squeegee. Leave to react for 5 minutes. Rework the surface evenly with a roller.  
 Consumption of StoPox BV 100: 0.3 - 0.5 kg/m<sup>2</sup>  
  
 Scatter StoQuarz 0.3 - 0.8 mm evenly onto the fresh prime coating.  
 Consumption of StoQuarz 0.3 - 0.8 mm: approx. 1 kg/m<sup>2</sup>  
 After curing, remove loose quartz sand by sweeping or suction cleaning.
- 3) Prime coating and scratch coat of StoPox BV 100 with Sto Zuschlag KS  
 Floods apply the mixed StoPox BV 100 to the substrate and spread it using a rubber squeegee. Leave to set for 5 minutes. Then roll evenly with a roller.  
 Consumption of StoPox BV 100: approx. 0.3 - 0.5 kg/m<sup>2</sup>  
  
 Mix StoPox BV 100 and then mix again with approx. 3 parts by weight of Sto Zuschlag KS. Roughly spread the mixture over the freshly primed area and trowel off evenly to the required layer thickness using a serrated installation tool.  
  
 Consumption of StoPox BV 100: approx. 0.5 kg/m<sup>2</sup> per mm layer thickness  
 Consumption of Sto Zuschlag KS: approx. 1.5 kg/m<sup>2</sup> per mm layer thickness

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Evenly scatter an abundant amount of StoQuarz 0.3 - 0.8 mm onto the fresh scratch coat. Avoid bald spots - if necessary, apply more scatter to the gaps until the scratch coat starts to gel.

Consumption of StoQuarz 0.3 - 0.8 mm: approx. 6 kg/m<sup>2</sup>

After curing, remove loose quartz sand by sweeping or suction cleaning.

#### 4) Bonding agent StoPur VS 70

Spray a thin layer of StoPur VS 70 at the earliest 1 day after applying the prime coating/scratch coat of StoPox BV 100, at +20°C average substrate temperature.

Avoid forming puddles. If necessary, roll afterwards with a dry lambswool roller.

Consumption of StoPur VS 70: max. 0.1 kg/m<sup>2</sup>

#### 5) Waterproofing layer of StoPur BA 2000

For StoPur VS 70 the minimum waiting time before applying the first layer of StoPur BA 2000 thick coat is 5 hours (at +20 °C average substrate temperature and > 40 % relative humidity). The max. waiting time is 12 hours.

Consumption of StoPur BA 2000 approx. 2.0 kg/m<sup>2</sup> plus the roughness depth  
StoPur BA 2000 can only be applied using 2-component spray equipment.

Spray equipment: Unipre G 31, Unipre GC 52

Settings (spray equipment): heat up to +50°C

Mixing ratio in parts by weight component A : component B = 100.0 : 79.0

Mixing ratio in parts by volume component A : component B = 100.0 : 74.0

Viscosity of component A = 1300 mPa

Viscosity of component B = 2400 mPa

Density of component A = 1.03 g/cm<sup>3</sup>

Density of component B = 1.10 g/cm<sup>3</sup>

#### 6) Tack coat of StoPur VBS 2000

Apply the StoPur VBS 2000 tack coat at the earliest 2 hours after spraying the StoPur BA 2000 waterproofing layer and at 20°C average substrate temperature.

Apply by airless spray-gun; over small areas StoPur VBS 2000 can also be applied using a short-pile roller.

If applying StoPur VBS 2000 by roller, do so quickly and evenly.

Consumption of StoPur VBS 2000: approx. 0.15 kg/m<sup>2</sup>

#### 7) Mastic asphalt protection layer

After a waiting time of at least 24 hours at +20°C, apply the mastic asphalt protection layer to the StoPur VBS 2000 tack coat; however this must be at the earliest 2 days after applying the StoPur BA 2000 waterproofing.

#### **Note:**

Moisture and soiling between the individual stages can disturb the adhesive bond.

Therefore take suitable preventative measures. At low temperatures, a delayed reaction, longer flash-off times, and a change in material consistency should generally be expected.

Application temperature (2 component equipment) according to implementation instructions +50 °C.

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## StoPur BA 2000

**Cleaning the tools** Clean with StoDivers EV 100 immediately after use.

### Delivery

**Color shade** Grey

### Packing

StoPur BA 2000 – 358 kg set

StoPur BA 2000 Component A 200 kg

StoPur BA 2000 Component B 158 kg

StoPur BA 2000 - 1790 kg set

StoPur BA 2000 Component A 1000 kg

StoPur BA 2000 Component B 790 kg

### Storage

**Storage conditions** Store in dry and frost-free conditions; avoid direct sunlight.

**Storage life** The shelf life of StoPur BA 2000 is approximately 12 months if stored in cool dry conditions.

### Identification

**Product group** Waterproofing

**Safety** Please refer to Safety Datasheet

### Special notes

**Health & Safety** Please refer to Safety Data Sheet

**Technical Support** Please consult the local sales office for further information and any site assistance required.

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 [www.sto-sea.com](http://www.sto-sea.com).

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