Technical Data Sheet

Sto Monoflexbahn 200

Polymerised bitumen sheet

Characteristics

Area of application

- As waterproofing layer under bituminous protection layers for surfaces on concrete substrates which are subject to foot and vehicle traffic
- Watertight concrete structure, marine structure, water & sewerage treatment plant.
- Commercial: Underground parking structure, foundation, elevator pit & retaining wall, water feature and swimming pool
- Industrial : Water containment reservoir, water treatment tanks and sewerage, traffic tunnels, below-ground pipelines, precast panel or integrated building system (IBS)
- Residential : Concrete home basement and swimming pool

Properties

- With a high situated insert of polyester fleece
- High tear and shear strength
- Highly crack bridging
- Tested in accordance with EN 14695

Technical Data

Criteria	Standard / test specification	Value / Unit	Notes
Softening point RAB	DIN 52011	151 °C	
Cold bending temperature	EN 1109	- 16 °C	

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

The concrete 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% by wt. for concrete in strength classes up to C30/37 and max. 3% by wt. for C35/45 concrete, measured with a calcium carbide meter.

Fresh concrete can be sealed after 7 days.

Requirements on StoPox BV 100:
Substrate temperature higher than +8°C and 3 K above dew point.
Average bond strength ≥ 1.5 N/mm²
Bond strength of the single smallest value 1.0 N/mm²

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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. A scratch coat is required for roughness depths >1.5 mm. Use mortar to re-profile recesses deeper than 5 mm. Treat substrate with primer, sealer, or scratch coat: See the Technical Data Sheet for StoPox BV 100. Surface of the substrate treated with StoPox BV 100 when flaming: dry and clean.
Application Temperature	Temperature > + 5°C and 3 K above dew point. average bond strength greater or equal to 1.5 N/mm^2 bond strength of the single smallest value 1.0 N/mm^2
Time of Application	Waiting time between the last application of the primer, sealer, or scratch coat and application of the polymerised bitumen sheet onto StoPox BV 100: at +10°C: approx. 24 hour at +23°C: approx. 24 hour
Material Preparation	The Sto Monoflexbahn 200 is ready-to-use and can be installed manually or by machine.
Consumption	Approx. consumption : 1 m^2/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	1. StoPox BV 100 2. Sto Monoflexbahn 200
Application	Application by melting Observe the instructions in accordance with ZTV-ING part 7, section 1. Roll out and align the sheet before installing it. Apply the Sto Monoflexbahn 200 using a 7-torch bitumen applicator wagon with roll mount and wind protection or use a spreader. Ensure that adhesive compound has melted evenly and that the torches heat the underside of the sheet across the entire width at all times. Ensure that a bead of bitumen (approx. 2 cm) emerges evenly from the edges. The side laps must be min. 8 cm, the end laps must be min. 10 cm. Offset the ends laps by 50 cm. Wipe away larger amounts of material with a piece of wood. Press it down using a piece of wood with rounded edges. Before installing the mastic asphalt check the following: Use a steel broom or chain link to check the installed sheet is free from voids.

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Application

Application (continued)

Do not carry our pull-off test by hand (exploratory test) if the substrate temperature is > +25°C. Assess the fracture pattern in accordance with ZTV-ING part 7, section 1 and appendix B 4.

When measuring the bond strength with testing equipment in accordance with TP-BEL-B part 1, it is not necessary to access the fracture pattern.

Minimum bond strength values depend on the substrate temperature:
+8°C ≥ 0.7 N/mm²
+23°C ≥ 0.4 N/mm²
+30°C ≥ 0.3 N/mm²

Installing the mastic asphalt protection layer:
Do not walk or drive onto the Sto Monoflexbahn 200 waterproofing layer more often than is necessary for installing the protection layer.
Do not turn or reverse vehicles on the waterproofing layer.

After fusing on the bitumen sheet and checking it for mechanical damage or other potential problems, apply a protection layer of mastic asphalt as soon as possible

Install the mastic asphalt protection layer by hand or using a suitable machine. If installing the protection layer by machine, limit the amount of material so as not to subject the bitumen sheet to the mastic asphalt temperature more than necessary.

Delivery

Colour

Black

Packing

Roll

Sto Monoflexbahn 200	7.5 m² roll
Sto Monoflexbahn 200	60 m² roll

Storage

Storage conditions

Avoid direct sunlight. Transport and store rolls in an upright position.
Protect from mechanical damage and humidity.
For minimum 12 hours before installation, do not store at temperatures below +5°C.

Identifications

Product Group

Bitumen membrane

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.

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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.

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