

BIGUMA®

-Microtrenching-SE



Bituminous, filled asphalt sealant for closing slots in asphalt pavements

Use

BIGUMA®- Microtrenching-SE is a polymer modified asphalt sealant, which has been especially designed for sealing cutting chambers in asphalt top coatings as they may occur at Nano/Micro Trenching for example. The special polymer combination of BIGUMA®- Microtrenching-SE, in combination with the special graded mineral compound sieve curve, combines the requirements to a high stability as well as a sufficient movement accommodation in the filled cutting or milling chamber. BIGUMA®- Microtrenching-SE enables equally to drive and walk on the cutting chambers and to accommodate the weather related movements of the asphalt.

Properties

BIGUMA®- Microtrenching-SE or the cutting chamber filled with the polymer modified asphalt sealant distinguish itself by the following characteristics:

- plastic elastic set, therefore optimum balance between high movement accommodation and stress relief within the cutting chamber
- trafficability
- no compression necessary
- optimum flow behaviour when filling the chambers in asphalt
- no primer necessary in asphalt
- very good performance in hot and cold conditions
- good adhesion to bituminous and mineral substrates
- bituminous building material and therefore easy to recycle

Processing information

a) Melting of the joint sealant

For the preparation of BIGUMA®- Microtrenching-SE it is recommended to use a boiler equipped with mechanical agitation, indirect heating and thermometer. The compound has to be heated carefully to the application temperature of 170-190 °C to avoid overheating as this may damage the polymers, which were added for the improvement of the product, and consequently it may lead to a loss of the guaranteed properties. The temperature of the asphalt sealant must be thermostatically regulated; it must be controllable at all times.

b) Requirements to the substrate

The substrate has to be dry and free from dust. A pre-treatment of the area to be repaired using a hot air lance is recommended.

c) Pouring of the compound

BIGUMA®- Microtrenching-SE is used for sealing the cutting chamber in the top layer. Depending on the used system, the cutting chamber between the level in which the cables have been laid and the top layer has to be filled reasonable. The material selection, as well as the method in which the layers are built, differs depending on the system used. However, it is indispensable that a sufficient compression of the

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Producer

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embedded material takes place and that the filling of the cutting chamber happens promptly, to avoid a damage of the existing pavement. BIGUMA®- Microtrenching-SE can be applied directly from the heater equipped with agitation into the cut groove by dumping or with the help of corresponding built-in equipment such as screed box or pulling boxes. Depending on the weather conditions, the dimensioning of the cutting chamber and the filling technique, the compound should be applied layer by layer. It is recommended to apply a final layer of BIGUMA®- Microtrenching-SE with a screed box, applying a thin layer on both sides over the cutting edges overlapping on the asphalt. The compound is designed in such a way that the finished layer has already got a base roughness on the surface even without or in case of unsatisfactory covering with chippings. In order to achieve a sufficient surface roughness, the surface of the applied repair compound should be covered while hot with a slightly bituminised high quality chippings. It is recommended to use a 1/3 mm or 2/5 mm high quality chippings adjusted to the colour of the top layer. The chippings have to be pressed with a light hand roller.

Weather conditions

The prepared joints are only allowed to be sealed in dry weather conditions and at a surface temperature of above 0°C.

Material consumption

BIGUMA®- Microtrenching-SE: $\text{volume of the cutting chamber to be filled length (cm)} \times \text{width (cm)} \times \text{depth to be filled (cm)} \times \text{specific gravity of the sealant (g/cm}^3\text{)} = \text{consumption in gram}$

Storage

The product has to be stored cold and dry and is storable for at least 24 months.

Form of supply

Flat carton: 25 kg

Cleaning agent

Equipment: BIGUMA®- SWS
In case of skin contact: hand cleansing paste

Technical data

Application temperature: approx. 170 - 190 °C
Density: approx. 2.1 g/cm³
Primer: in asphalt not necessary
Expansion and adhesion properties (at -20 °C according to DIN 13880-10): > 10% (expansion)
< 0.5 N/mm² (max. force absorption)

Application areas

Width of cutting chamber: min. 2 cm max. 6 cm
Depth of cutting chamber: min. 2 cm max. 10 cm

This product information corresponds to our latest available information. The indicated values are average values under normal conditions. The processor is obliged to test the suitability and application options for the intended purpose. We shall be pleased to advise if you have any questions about our product. Our Terms and Conditions of Business apply, which can be found at www.dga.de.

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