

# BIGUMA<sup>®</sup>-Asphalt



Polymer modified bituminous joint sealant in accordance with TL Fug-StB and DIN EN 14188-1, Type N2

## Use

BIGUMA<sup>®</sup>- Asphalt is suitable for filling joints, repairing cracks and for the structuring of seams in asphalt traffic areas.

## Features

BIGUMA<sup>®</sup>- Asphalt fulfils the requirements of "the Technical Delivery Conditions for bituminous joint sealants" (TL Fug-StB) and DIN EN 14188-1, Type N2. BIGUMA<sup>®</sup>- Asphalt was conceived especially for the requirements of hot bituminous casting for application on asphalt surfaces.

Application is possible in joints that are designed to join an asphalt surface to fixtures or concrete curbs or cast steel. Use in concrete traffic areas is not permissible. We recommend the use of another casting compound of the N2 or N1 type from our range of supply, depending on the intended purpose.

BIGUMA<sup>®</sup>- Asphalt or the produced joints distinguish itself by the following characteristics:

- rheologically optimized to the geometry and properties of asphalt joints
- plastic elastic set, therefore optimum balance between high movement accommodation and stress relief
- very good adhesion to bitumen-containing substrates
- good application characteristics at heat and cold temperatures
- high ageing resistance of the joint
- high stability

## Application instructions

### a) Melting

BIGUMA<sup>®</sup>- Asphalt has to be heated carefully to the application temperature of 160 - 180 °C in a boiler equipped with mechanical agitation, indirect heating and thermometer. The temperature of the sealant must be thermostatically regulated; it must be controllable at all times. Overheating of the sealant should necessarily be avoided, as this will damage the polymers, which were added for the improvement of the product, and consequently it will lead to a loss of the guaranteed properties.

Mono-material processing is required to guarantee the properties of the casting compound as warranted.

### b) Filling of the joints

The flanks of joints must be clean, free of dust, dry, and generally free of any dissociable substances. The asphalt joints to be cast must be cleaned-out with compressed air as needed, whereby spatial separation between the cleaning- and the casting work must be observed.

Pressurized hot air devices can be used to artificially dry or heat the area to be filled.

For BIGUMA<sup>®</sup>- Asphalt COLZUMIX<sup>®</sup>- Haftgrund primer has to be used, if needed, which is especially designed for this material. The function of the primer is to bind any dust bonding to the asphalt and to form an adhesive layer, which will fuse with the sealant being filled into the joints.

Details on the use and properties of COLZUMIX<sup>®</sup>- Haftgrund are listed in the corresponding technical data sheet. To join onto e.g. cast steel fixtures or kerbstones, we basically recommend using a COLZUMIX<sup>®</sup>- Haftgrund undercoat. BIGUMA<sup>®</sup>- Asphalt can be mechanically cast with a casting lance or by hand with a pot.

## Central Sales

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## Producer

Plant Dortmund

The joint sealant must have reached the indicated application temperature during pouring work. If the pouring temperature is clearly below the stated temperature, the flow ability of the sealant suffers. The joint sealants may possibly not fill the to be poured joints completely. There is a risk of cavity formation that, with rolling traffic, can lead to sagging of the joint fill or can impair the durability of the implemented construction work.

The joint width should be at least 10 mm for longitudinal joints as well as for transverse joints. Longitudinal joints should not be arranged along wheel paths or in the area of lane markings.

The cooling of the sealant may cause shrinkage dependent on the joint dimensions; a second pouring can be necessary. This second pouring should be made immediately after the first one.

### c) Use in crack restoration

Existing cracks must be blown-out under pressure with a hot air lance (crack-, covering procedure, HPS procedure) or must be roughened in advance. When restoring cracks it is important that all foreign materials that may be present and loose parts be removed from the crack. The hot air lance heats the asphalt at the flanks of the crack and the bitumen is thus activated. If needed, COLZUMIX®- Haftgrund can be used as a primer.

In the crack-, covering procedure and in the milling-, casting procedure, BIGUMA®- Asphalt is applied to the crack area using a screed box. Various widths are used, depending on the path of the crack. The runny compound at the specified application temperature flows into the crack and binds the flanks of the crack there.

A portion of the BIGUMA®- Asphalt casting compound remains on the surface and covers the crack in overlapping fashion. This overlap protects the crack and prevents the compound from being detached from the flanks of the crack. Application thickness when restoring cracks is between 2 and 3 mm. To guarantee gripping action and to match appearance with the existing surface, pre-bituminized, double-crushed chips / and screened chips and sand of 1/3 mm grain size are dispersed and pressed into the still-hot BIGUMA®- Asphalt immediately after the casting.

### c) Use of splice adhesive, hot

BIGUMA®- Asphalt is applied mechanically with a casting lance. The flank of the seam is thereby fully coated. The applied quantity depends on the type of asphalt layer. In doing so, overdosing must be avoided because there is a risk of local, excess greasing in the area of the seam. In particular for top layers, care should be taken that the surface of the first covering is not contaminated with binder. The insertion of hot asphalt mix can take place shortly after seam treatment, when the binder has cooled. Binding between the asphalt layers is produced by hot mix fusing with the seam adhesive and thus producing a strong bond between the layers. The seam surfaces of the asphalt layers must be mostly dry, clean, frost-free, and oil and grease free. Loose components must be removed. If possible, care should be taken that there is already a uniform, slightly bevelled profile when the first layer is inserted or solidifies. This can be achieved e.g. by using a bevelled edge former and an edge pressure roller. If these measures are not adhered to at the time of insertion, it is recommended that the still-hot asphalt layer be trimmed to a linear bevel.

BIGUMA®- Asphalt is not suitable for application via spray bars.

### Weather conditions

Pre-treated joints, cracks and seams may be cast only in dry weather and at component temperatures above 0 °C. The surface temperature must be at least 3 °C above the dew point temperature when inserting BIGUMA®- Asphalt.

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## Material consumption

BIGUMA®- Asphalt: joint length (cm) x joint width (cm) x joint depth (cm) x specific gravity of the sealant (g/cm<sup>3</sup>) = consumption (g).

Optional Primer: The consumption of the primer (COLZUMIX® -Haftgrund) is approx. 3 % of the sealant amount needed.

## Storage

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

## Form of supply

Carton: 32 kg, 13 kg

Thin metal tins: 32 kg

## Cleaning agent

Equipment: BIGUMA®- SWS

At skin contact: hand washing paste

## Authoritative regulations

Among others, the following requirements are obligatory when using BIGUMA®- Asphalt:

- ZTV Asphalt-StB
- ZTV/TL/TP Fug-StB
- ZTV BEA-StB
- ZTV BEA-StB

## Technical data

Application temperature: approx. 160 - 180 °C

Density: approx. 1,23 g/cm<sup>3</sup>

## Safety information

Please observe the safety data sheet, this contains important information on the handling, transport and storage of BIGUMA®- Asphalt.

This product information corresponds to our latest available information. 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](http://www.dga.de).

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