

# BIGUMA®

## -BR I Method



Method for the production of asphaltic transitions in road pavements

### Use

Asphaltic transitions in road pavements serve as bridging and sealing of joints in bridges and other civil engineering buildings. The pavement transitions must withstand the strain of the traffic, climatic conditions and movement of buildings without damage and must reduce the arising stress crack-free.

For the BIGUMA®- BR I - Method, asphaltic transitions in road pavements consists of a special system which is made consistent with each other, the saturating composition BIGUMA®- BR I, choice double broken and double screened chippings and cover strips.

### Material

#### Saturating Agent

BIGUMA®- BR I is a hot-applied, polymer-modified and bituminous saturating composition with excellent filling material and plasticisers for the production of asphaltic transitions in road pavements.

BIGUMA®- BR I is used for the lining of the joint frog and the sealing of the voids of the mixed grains.

Application temperature:	≈ 150 - 180° C
Specific gravity:	≈ 1,1 g/cm <sup>3</sup>
Primer:	no primer; if required: COLZUMIX®- Haftgrund
Supplied in:	tins à 27 kg

#### Mineral Material

The mineral material used is a multiple-broken natural stone; we recommend diabase, basalt or granite. The mineral material must be in accordance to the following requirements:

Grain size:	fine gravel 11/16 mm or 16/22 mm
Undersize percentage:	max. 15 %
Oversize percentage:	max. 10 %
Resistance to impact SZ 8/12:	< 18 % according to TL Min-StB
Grain shape:	cubical
Purity:	dust free (washed)

#### Cover Strips

A cover strip (width 15 cm) must be placed above the joint gap. This cover strip must withstand the strain of the traffic and must prevent that chippings get into the joint. The type of cover strip must be in accordance with the local conditions.

### Application

#### Recommendations for the application of BIGUMA®- BR I

BIGUMA®- BR I has to be heated carefully to the application temperature in a boiler equipped with mechanical agitation, indirect heating system and thermometer. The temperature of the saturating composition must be regulated thermostatically and should be controllable at all times. Overheating of the

#### Central Sales

Dortmunder Gußasphalt GmbH & Co. KG

✉ Am Hafenbahnhof 10 ■ 44147 Dortmund ■ Germany

☎ +49 231 395797 - 37    @ info@dga.de    🌐 www.dga.de

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sealant must be avoided as this will damage the plastics added for stabilization and improvement, resulting in reduced compressive strength.

## Preparatory work

The existing road pavement must be removed to the pre-determined depth (min. 5 cm) by cutting and breaking open. The depth of the transition should correspond to the depth of the road pavement. The width of the joint is max. 50 cm. Residues in the joint must be removed. The joint wall must be proof and must run parallel to each other. After preparation, the joint must be dry, unbreakable and rough enough. The joint walls must be free from contamination which could have an impact on the adhesion. Existing flashing pieces of the sealing must be protected.

## Lining of the joint

The joint walls and the bottom must be lined with BIGUMA®- BR I. The application of a primer is not necessary if the joint walls are clean, but if required, COLZUMIX®- Haftgrund can be used.

## Preparation of mineral material

The fine gravel must be heated to approx. 180 - 190° C using a mixing drum and a hot compressed-air lance. A higher temperature must be avoided as the heat of the mineral material can overheat the saturating agent. The fine gravel is slowly filled into the joint; it must be applied with adequate equipment. The max. depth per layer is 3 to 5 cm.

## Application of saturating agent BIGUMA®- BR I

Application should only take place in dry weather conditions and at a material's surface temperature of more than +5° C. BIGUMA®- BR I must be filled into the joint by using a pouring lance. The compound must be filled into the joint so that there will be no voids between the mixed grains.

## Surface working

The surface of the filled joint must be adjusted to the adjoining road pavement. The surface finish consists of the sealing compound (width 1 - 2 mm). This surface must be manually smoothed with a smoothing spatula. Fine gravel with a bituminous wrapping (1/3 mm or 2/5 mm) should be filled on the hot surface for the visual uniformity to the adjoining road surface as well as for the gripping improvement.

## Consumption of BIGUMA®- BR I

25 - 40 Vol. % = depending on the grain size of the mineral material.

## Packaging

BIGUMA®- BR I is supplied in thin metal tins on disposable pallets. The tins have a silicon layer inside; this will guarantee a fast, secure and problem-free opening.

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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