



Bituminous, hot-applied joint sealant, plastoelastic type

Application

For sealing joints in concrete and asphalt pavements, prefabricated concrete compound units, building construction and civil engineering, on transitional constructions from asphaltic concrete to normal concrete pavement. Also suitable for repair work on asphalt pavements.

Properties

BIGUMA[®]- Arctic Grade is a hot-applied joint sealant based on rubber-bitumen made for use in cold regions. This material complies with the quality regulations of the „Technical delivery conditions of bituminous joint sealants“, also tested at temperatures of -30 °C.

Processing information

a) Melting

BIGUMA[®]- Arctic Grade has to be heated indirectly and carefully to the application temperature 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 be avoided as this will damage the plastics added for stabilization and improvement, resulting generally in a clear decrease of the softening point (ring and ball).

b) Preparatory work

The joints to be sealed should be thoroughly blown with high-pressure-air or cleaned with a brushing machine. Cleaning works and application works should be done as separate tasks to avoid product contamination. For artificial dry-out or pre-heating of the joints, hot compressed air lances can be used.

The primer COLZUMIX[®]- Haftgrund has specially been suited to BIGUMA[®]- Arctic Grade. The primer must cover the joint flanks completely by forming a film. It is to be recommended that a strip of about 1 cm width is applied on the road pavement on both sides of the joint.

The function of the primer is to bind the dust which is sticking on the concrete and asphalt parts and to form an adhesive layer which will fuse with the sealant being filled into the joints.

c) Filling of the joints

The pre-treated joints should only be sealed in dry weather conditions and at surface temperatures of more than + 5° C. Before sealing the joints, the following fundamental points have to be considered:

The applied primer must have dried, i. e. the surface must be touch-dry. The primed joint must be dry and free from dust in order to guarantee an intensive bonding with the concrete or asphalt. The pouring work must be carried out with suitable pouring equipment (see above). The joint sealants must have reached the stated application temperature during pouring work. If the application temperature is too low, the flow ability of the sealant suffers. Possibly the sealant may not completely fill out the joints; voids may occur which later can result in sinking of the sealant under moving traffic. In any case it should be avoided to use sealant, which has already cooled off, once again. 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. The sealing procedure should be carried out in such way that it will not be necessary to remove sealant which has been overfilled, because the removal of the sealant may reduce the adhesion of the sealant at the joint flanks.

Central Sales

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Producer

Plant Dortmund

Weather conditions

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

Material consumption

BIGUMA®- Arctic Grade: $\text{joint length (cm)} \times \text{joint width (cm)} \times \text{joint depth (cm)} \times \text{specific gravity of sealant (g/cm}^3\text{)} = \text{consumption (g)}$

Primer: The consumption of primer (COLZUMIX®- Haftgrund) 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

The joint sealant will be filled into thin metal tins (hobbocks) and transported on non returnable pallets. A separation agent coating and the welded type of the hobbocks guarantee a fast, problem-free and safe removal of the mass out of the tin. The removed blocks can be filled into the heater together with the probably still adherent separation agent coating.

Thin metal tins: 30 kg, 10 kg

Cartons: 24 kg, 12 kg

Cleaning agent

Equipment: BIGUMA®- SWS, petrol and commercial solvents

At skin contact: hand washing paste

Authoritative regulations

At the production or the filling of the joints you have to follow among others the following regulations:

- ZTV Fug-StB
- ZTV Beton-StB
- ZTV BEA-StB

Technical data

Application temperature: approx. 160 - 180 °C

Density: approx. 1,1 g/cm³

Primer: COLZUMIX®- Haftgrund

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.

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