




## KÖSTER Bikuthan 1C

Technical Data Sheet W 251

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- Trademark "BIKUTHAN" registered Patent, German Patent office, K 51 945  
- General building authority approval P-DD 4868/01/2011 (bauteist, Dresden)

### 1 component polymer modified bitumen thick film sealant

 1020	KÖSTER BAUCHEMIE AG Dieselstraße 1-10, 26607 Aurich 13 W 251 EN 15814:2012 <b>KÖSTER Bikuthan 1C</b> <b>Polymer modified bitumen thick film sealant (PMB)</b> <b>for the waterproofing of underground structures</b>
Watertightness Crack bridging ability Resistance against water  Bending properties at low temperatures Stability at high temperatures Reaction to fire Compressive strength Durability of watertightness and reaction to fire	Class W2A Class CB2 No discoloration of the water / No debonding of the inlay No cracks  No sliding and yielding Class E Class C2A passed

#### Features

KÖSTER Bikuthan 1C is a solvent free, elastic polymer modified bitumen thick film sealant with excellent adhesion to dry and slightly damp substrates. Once applied to the substrate and after full cure, the resulting coating is elastic, watertight and bridges cracks up to 5 mm. It displays excellent resistance to all aggressive compounds commonly present in the ground.

#### Technical Data

Material base	Polystyrene and polymer modified bitumen emulsion
Density	0.7 g / cm <sup>3</sup>
Heat resistance	+ 70 °C
Building material class	Normally flammable (B2)
Curing time (depending on layer thickness, substrate, temperature and humidity)	2 to several days
Application temperature	min. + 5 °C
Substrate temperature	+ 5 °C to + 30 °C

#### Fields of Application

KÖSTER Bikuthan 1C is a durable waterproofing for building structures with ground contact such as basements and foundations, on terraces without inhabited substructures, balconies, as well as wet and damp rooms.

#### Substrate

The substrate should be dry or slightly damp, (no visible water), frost-free, free of tar and oil and free of loose particles. Remove mortar residues and break edges. Vertical and horizontal inside corners and transitions should be rounded out by installing fillets. Mineral substrates have to be primed with KÖSTER Polysil TG 500 (approx. 100 – 130 g / m<sup>2</sup>) by spray application. Strongly absorbent surfaces may require up

to 250 g / m<sup>2</sup>.

Priming is not necessary on polystyrene substrates.

Surface roughness and irregularities up to 5 mm are filled with a scraped layer of KÖSTER Bikuthan 1C. Allow the scraped layer to dry far enough so that it will not be damaged by the application of the waterproofing layer. Scraped layers do not count as waterproofing layers.

If defects are deeper than 5 mm, level them beforehand with KÖSTER Repair Mortar mixed with 20 % KÖSTER SB Bonding Emulsion in the mix water.

#### Fillets

Fillets (leg length 4 – 6 cm) using KÖSTER Repair Mortar (Consumption per m: approx. 2.5 kg) must be applied at least 24 hours prior to beginning the waterproofing application in the wall / floor junction. When waterproofing polystyrene materials, the fillet (leg length: 2 cm) is made with KÖSTER Bikuthan 1C. The area waterproofing can always only be applied after the fillet has fully cured.

#### Application

KÖSTER Bikuthan 1C is always applied in two layers. Scraped layers for levelling the substrate (surface preparation) are not considered a waterproofing layer. KÖSTER Glass Fiber Mesh is embedded into the fresh first layer. The waterproofing layer has to be free of flaws, even, and in the required thickness. The actual layer thickness must nowhere be less than the required minimum thickness and in no case exceed it by more than 100 %. The waterproofing layer of the wall area has to extend at least 10 cm onto the floor slab or onto the foundation.

The external waterproofing has to be connected in all areas to the existing horizontal waterproofing.

Do not apply the material at temperatures below + 5 °C. Do not expose the material to frost, rain and water or to direct sunlight until the material has fully cured.

The minimum dry layer thickness must be

-3 mm thick in case of waterproofing against ground moisture and non-retained seepage (wet layer thickness 4.5 mm = 4.5 l / m<sup>2</sup>). Embed KÖSTER Glass Fiber Mesh at corners, fillets and areas in danger of cracking.

-4 mm thick in case of waterproofing against retained seepage (wet layer thickness 6 mm = 6 l / m<sup>2</sup>). Embed KÖSTER Glass Fiber Mesh in the first layer.

Waterproof expansion joints by applying KÖSTER Joint Tape 20 / Joint Tape 30 overlapping the joint areas with the thick film sealant. Avoid allowing water to seep in behind the coating. Allow the waterproofing to fully cure before stressing the material (weather dependent, at the

The information contained in this technical data sheet is based on the results of our research and on our practical experience in the field. All given test data are average values which have been obtained under defined conditions. The proper and thereby effective and successful application of our products is not subject to our control. The installer is responsible for the correct application under consideration of the specific conditions of the construction site and for the final results of the construction process. This may require adjustments to the recommendations given here for standard cases. Specifications made by our employees or representatives which exceed the specifications contained in this technical guideline require written confirmation. The valid standards for testing and installation, technical guidelines, and acknowledged rules of technology have to be adhered to at all times. The warranty can and is therefore only applied to the quality of our products within the scope of our terms and conditions, not however, for their effective and successful application. This guideline has been technically revised; all previous versions are invalid.

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earliest after 24 hours).

KÖSTER Universal Cleaner

Prod. code X 910  
010

## Pipe and cable penetrations

When waterproofing against ground moisture and non-retained seepage, apply KÖSTER Bikuthan 1C in a fillet shape around the cable feed-through or penetration and embed KÖSTER Glass Fiber Mesh into it. When waterproofing against non-pressurized water and retained seepage (DIN 18195 parts 5-6), generally loose or fixed flange systems should be used. It is necessary to make sure that the material of the installed parts is compatible with the waterproofing material. The same applies when waterproofing against pressurized water.

## Protection and drainage layer

Prior to backfilling, the fully cured coating must be protected from mechanical damage. We recommend the use of KÖSTER Protection and Drainage Sheet 3-400. Polystyrene drainage boards and perimeter insulation are to be fully bonded. In order to avoid vertical movement of the waterproofing when backfilling the excavation pit, the surface of the protection or respective drainage boards should be covered with a gliding layer of polyethylene. All cases allow for bonding with KÖSTER Bikuthan 2C. Avoid stress points on the waterproofing. Dimple sheets, corrugated boards and the like are not suitable protection layers. Drainage is recommended. Make sure not to damage the fillets when backfilling and compacting non-cohesive soils.

In case of horizontal waterproofing on floor areas, embed KÖSTER Glass Fiber Mesh between the waterproofing layers. Install two gliding layers of polyethylene foil prior to applying the screed.

## Consumption

4 - 5 l/m<sup>2</sup>

## Cleaning

Clean tools with water immediately after use. Clean cured material with KÖSTER Universal Cleaner.

## Packaging

W 251 030                      30 l hobbock

## Storage

Store the material cool but frost free. In originally sealed containers it can be stored for a minimum of 6 months.

## Safety

Observe all governmental, state, and local safety regulations when installing the material.

## Related products

KÖSTER Polysil TG 500	Prod. code M 111
KÖSTER NB 1 Grey	Prod. code W 221 025
KÖSTER Bikuthan 2C	Prod. code W 250 028
KÖSTER Glass Fiber Mesh	Prod. code W 411
KÖSTER Repair Mortar	Prod. code W 530 025
KÖSTER SD Protection and Drainage Sheet 3-400	Prod. code W 901 030
KÖSTER Peristaltic Pump	Prod. code W 978 001

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