KÖSTER Bikuthan® 1C

Technical guideline / Article number **1.15**

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1 component polymer modified bitumen thick film sealant

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 plastic, watertight and it bridges cracks up to 5 mm width. 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 / cm³
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

Field of application

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

Substrate preparation

The substrate should be dry or slightly damp, frost-free, free of grease, oil and loose particles. Remove protruding mortar residues, break edges, corners should be rounded out by installing fillets. Mineral substrates always have to be primed with KÖSTER Polysil® TG 500 (approx. 100 – 130 g / m²) by spray application. On polystyrene substrates, priming is not necessary. Fill honeycombs, joints, rough surfaces and uneven areas up to a depth of 5 mm with a scraped layer of KÖSTER Bikuthan® 1C. If defects are deeper than 5 mm, fill them beforehand with KÖSTER Repair Mortar. Allow the scraped layer of KÖSTER Bikuthan® 1C to dry completely before applying the main waterproofing layer.

Fillets

Fillets (leg length: 4 – 6 cm) in the wall / floor junction must be applied at least 24 hours prior to the beginning of the application of the waterproofing using KÖSTER Repair Mortar (Consumption per m: approx. 2 – 3 kg). When waterproofing polystyrene materials, the fillet (leg length: 2 cm) is made from KÖSTER Bikuthan® 1C. The subsequently applied area waterproofing can in both cases be applied only after full cure of the fillet.

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 Fibre 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 / m²). Embed KÖSTER Glass Fibre Mesh at corners, fillets and areas strongly in danger of cracking.
- 4 mm thick in case of waterproofing against retained seepage (wet layer thickness 6 mm = 6 l / m²). Embed KÖSTER Glass Fibre Mesh in the first layer.

Seal expansion joints by applying KÖSTER Special Joint Tape in the joint areas of the thick film sealant. Avoid water seeping in behind the coating. Allow the waterproofing to cure fully before stressing the material (depends on the weather, but at the earliest after 36 hours).

Feed throughs

In case of waterproofing against ground moisture and non-retained seepage, apply KÖSTER Bikuthan® 1C in a fillet shape and embed KÖSTER Glass Fibre Mesh into it. When waterproofing against non-pressurised water and retained seepage, generally loose- / 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 pressurised water.

Protection and drainage layer

Prior to backfilling, the fully cured coating must be protected from mechanical damages. We recommend use of our KÖSTER Protection and Drainage Sheet 3-400. Polystyrene drainage boards, perimeter insulation, etc. can be spot-bonded with KÖSTER Bikuthan® 2C in case of “ground moisture” and “non-retained seepage”. A full surface bonding is required if the waterproofing is subjected to “retained seepage” and “pressurised water”. In order to avoid vertical movement during filling of the excavation pit, the surface of the protection- or respectively drainage boards should be covered with a gliding layer of e.g. polyethylene. All cases allow for bonding with KÖSTER Bikuthan® 1C. Avoid stress at single spots only. Dimple sheets, corrugated boards or the like are not suitable protection layers. A drainage is required.

Consumption

Loading condition	
Ground moisture, non-retained seepage and non-pressurized water	min. 4.0 l / m²
Retained seepage	min. 6.0 l / m²

Cleaning of tools

Clean tools with water immediately after use. If the material is already cured, clean tools with KÖSTER Bitumen Remover.

Packaging

30 l hobbock

Storage

Store the material cool but frost free. In originally sealed packages, the material can be stored for approx. 6 month.

Technical guidelines cited

KÖSTER Bikuthan® 2C	Art. No.	1.15
KÖSTER Polysil® TG 500	Art. No.	4.011
KÖSTER Repair Mortar	Art. No.	5.030
KÖSTER Bitumen Remover	Art. No.	9.03
KÖSTER Special Joint Tape	Art. No.	10.37
KÖSTER Glass Fibre Mesh	Art. No.	11.01
KÖSTER Protection and Drainage Sheet 3-400	Art. No.	11.40

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