

KÖSTER Bikuthan® 2C Supertight

Technical guideline / Article number **1.14**

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- Industry classification "Bikuthan" registered at the German patent office, K 51 945
- Official test certificate for approval by the building authorities P-2005-4-3472/01-K (MPA for construction Engineering, Dresden)



2 component polymer modified bitumen thick film sealant with polystyrene light fillers for waterproofing building structures according to DIN 18195, part 4 and 5

Features

KÖSTER Bikuthan® 2C Supertight is a solvent free, crack bridging, 2 component, polymer modified bitumen thick film sealant with excellent adhesion to dry and slightly damp substrates. Already shortly after its application the material is rainproof. The polystyrene admixture ensures a very easy application. The material has been tested for and received official approval by the building authorities.

Technical data

Material base	polystyrene and polymer modified bitumen emulsion / reactive powder
Density of the mixture	0.91 g / cm ³
Cold resistance	0 °C (R = 15 mm, crack free)
Heat resistance	70 °C
Waterproof (after full cure) according to DIN 1048 part 5	waterproof up to 7 bar
Building material class	Normally flammable (B2)
Curing time (depending on layer thickness, substrate, temperature and humidity)	1 to 3 days
Mixing time	min. 3 minutes
Pot life	approx. 90 minutes
Application temperature	min. + 5 °C
Substrate temperature	+ 5 °C to + 30 °C

Field of application

KÖSTER Bikuthan® 2C Supertight is a safe and long lasting external waterproofing for basement walls, foundations, floor plates etc. for the intermediate waterproofing of balconies, terraces without inhabited substructures as well as in wet- and damp-rooms.

Relevant is the standard DIN 18195: (Waterproofing against ground moisture and non retained seepage (part 4) and

waterproofing against unpressurised water on ceilings and wet rooms (part 5).

Since applications of waterproofings are carried out depending on the water-loading conditions, the loading conditions have to be determined exactly by the planner prior to the application.

KÖSTER Bikuthan® 2C Supertight is also suited for the intermediate waterproofing underneath screeds and for bonding insulation- and drainage- boards.

Substrate preparation

The substrate should be dry or slightly damp, frost-free, free of tar and oil and free of loose particles. Remove protruding mortar residues; break edges; corners and transitions 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. Surface profiles and unevenness up to a depth of 5 mm are closed with a scraped layer of KÖSTER Bikuthan® 2C Supertight. If defects are deeper than 5 mm, close them level beforehand with KÖSTER Repair Mortar. Allow the scraped layer of KÖSTER Bikuthan® 2C Supertight to dry far enough so that the scraped layer is not damaged by the application of the subsequently applied 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® 2C Supertight. The subsequently applied area waterproofing can in both cases be applied only after full cure of the fillet.

Application

Add the powder to the liquid component in portions and continually mix both components intensively with each other using a slow rotating stirring device until the material becomes a paste-like, lump-free, homogeneous mass (mixing time is min. 3 minutes).

KÖSTER Bikuthan® 2C Supertight is always applied in two layers using a plastering trowel or steel float. Scraped layers for levelling the substrate (surface preparation) are not considered a waterproofing layer. The layers have to be applied shortly after each other. The waterproofing layers have to be free of flaws, even and in the required thickness. The actual layer thickness must nowhere be less than the required minimum layer 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 front of the floor slab or foundation. External waterproofing must overlap the existing horizontal waterproofing in all areas by 15 cm. The pot life is approx. 90 minutes at a temperature of 20 °C. Do not apply the material at temperatures below + 5 °C. Do not expose the material to frost, rain and water or direct sunlight until it has fully cured.

The minimum dry layer thickness is 3 mm in case of waterproofing against ground moisture and non-retained seepage as well as non-pressurised water (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.

Seal expansion joints by applying KÖSTER Bikuplan® 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 24 hours).

Feed throughs / penetrations

In case of waterproofing against ground moisture and non-retained seepage, apply KÖSTER Bikuthan® 2C Supertight in a fillet shape around the feed through or penetration 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 SD Protection and Drainage Sheet. Polystyrene drainage boards,

perimeter insulation, etc. can be spot-bonded 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 backfilling 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® 2C Supertight. Avoid stress at single spots only. Bumpy foils, corrugated boards or the like are not suitable protection layers. A drainage is required. Make sure not to damage the fillets when backfilling and compacting non-cohesive soils.

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

Consumption

Loading condition:

Ground moisture and non-retained seepage 4.5 l / m²

Cleaning of tools

Clean tools from fresh material with water. If the material is already cured, clean tools with KÖSTER Bitumen Remover.

Packaging

28 l hobbock (Powder component is inside)

Storage

Store the material in a cool and frost free place; in closed originally sealed packages, the material can be stored for approx. 6 month.

Safety precautions

The powder component contains cement. Avoid skin contact.

Technical guidelines cited

KÖSTER Polysil® TG 500	Art. No. 4.011
KÖSTER Repair Mortar	Art. No. 5.030
KÖSTER Bitumen Remover	Art. No. 9.03
KÖSTER Bikuplan® Special Joint Tape	Art. No. 10.37
KÖSTER Glass Fibre Mesh	Art. No. 11.01
KÖSTER SD Protection and Drainage Sheet	Art. No. 11.40

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.