

KÖSTER

Bikuthan® 1C Supertight

Technical guideline / Article number **1.15**

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- Industry classification "Bikuthan" registered at the German patent office, K 51 945

1 component polymer modified bitumen thick film sealant

Features

KÖSTER Bikuthan® 1C Supertight 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. The polystyrene admixture improves the thermal and sound insulation.

Technical data

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| Material base | Polystyrene and polymer modified bitumen emulsion |
| Density | 0.7 g / cm ³ |
| 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 Supertight 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 Supertight. If defects are deeper than 5 mm, fill them beforehand

with KÖSTER Repair Mortar. Allow the scraped layer of KÖSTER Bikuthan® 1C Supertight 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 Supertight. The subsequently applied area waterproofing can in both cases be applied only after full cure of the fillet.

Application

KÖSTER Bikuthan® 1C Supertight is always applied in two layers. Scraped layers for levelling the substrate (surface preparation) are not considered a waterproofing 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 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 36 hours).

Feed throughs

In case of waterproofing against ground moisture and non-retained seepage, apply KÖSTER Bikuthan® 1C Supertight 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 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 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 Supertight. Avoid stress at single spots only. Bumpy foils, 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

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.

Storage

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

Technical guidelines cited

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| 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 |