




KÖSTER Deuxan Professional

Technical Data Sheet W 256 032

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- Industry classification "Deuxan" registered at the German patent office, K 50 863

Crack-bridging, sprayable, non-sagging, robust, 2 component polymer modified bitumen thick film sealant for waterproofing buildings

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|  1020 | KÖSTER BAUCHEMIE AG Dieselstraße 1-10, 26607 Aurich 14 W 256 EN 15814:2012 KÖSTER Deuxan Professional Polymer modified bitumen thick film sealant (PMB) for the waterproofing of underground structures |
| 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 Deuxan Professional is a two-component, polystyrene free, fibrated polymer modified bitumen thick film sealant for secure waterproofing of building structures according to DIN EN 18533. The coating bridges cracks in the substrate and is resistant to pressurized water. KÖSTER Deuxan Professional is especially suited for application with spraying machines.

Technical Data

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| Material base | bitumen / rubber with a reactive powder |
| Density of the mixture | 1.07 g / cm ³ |
| Heat resistance | + 70 °C |
| Elongation at break | approx. 100 % |
| Waterproof after full cure (in accordance to DIN 1048 part 5) | waterproof up to 5 bar |
| Curing time at + 20 °C | approx. 24 hours |
| Min. temperature during curing | + 2 °C |
| Mixing time | min. 3 minutes |
| Pot life | approx. 90 minutes |
| Application temperature | + 5 °C to + 35 °C |
| Substrate temperature | + 5 °C to + 30 °C |

Fields of Application

KÖSTER Deuxan Professional is designed for the secure and permanent exterior waterproofing of basement walls, foundations, floor plates, etc. and for intermediate waterproofing of balconies, terraces without inhabited sub-structures as well as for wet and damp rooms.

Since waterproofing is carried out depending on the loading conditions, the loading conditions have to be determined by the planner prior to the application.

KÖSTER Deuxan Professional has been successfully used against pressurized water for many years (Consumption min. 6 kg / m²). The coating is also suitable for intermediate waterproofing underneath screeds and for bonding insulation and drainage boards.

The relevant standard is the DIN EN 18533.

Since the application of the waterproofing is carried out depending on the water-loading condition, the loading condition has to be determined exactly by the planner prior to the application. KÖSTER Deuxan Professional has proven itself successfully for many years also in waterproofing against pressurized water (Consumption min. 6 kg / m²). The coating is also suited for waterproofing under screeds and for bonding of insulation and drainage boards.

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, break edges, and vertical and horizontal inside 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. Strongly absorbent surfaces may require up to 250 g / m². Priming is not necessary on polystyrene substrates.

Surface roughness and irregularities up to 5 mm are filled with a scraped layer of KÖSTER Deuxan Professional. 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) 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 Deuxan Professional. 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

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stirring device until the material becomes a paste-like, lump-free, homogeneous mass (mixing time is min. 3 minutes).

KÖSTER Deuxan Professional 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 first layer while it is still fresh. The layers have to be applied shortly after each other using a plastering trowel or steel float. KÖSTER Deuxan Professional can be applied with proper spraying equipment. 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 front of the floor slab or foundation. External waterproofing has to be connected in all areas to the existing horizontal waterproofing. Do not expose the material to frost, rain and water or to direct sunlight until it has fully cured.

The minimum dry layer thickness must be:

- 3 mm thick in case of waterproofing against ground moisture and non-retained seepage as well as non-pressurized water (wet layer thickness 4.0 mm = 4.0 kg / m²). Embed KÖSTER Glass Fiber 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 kg / m²). Embed KÖSTER Glass Fiber Mesh into the first layer.

Seal expansion joints by applying KÖSTER Joint Tape 20 / KÖSTER Joint Tape 30 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).

Pipe and cable penetrations

Apply KÖSTER Deuxan Professional in a fillet shape around the feed through or penetration and embed KÖSTER Glass Fiber Mesh into it. 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 Deuxan Professional. 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.

Horizontal waterproofing layers

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. Horizontal waterproofing layers In case of horizontal waterproofing of floor areas, embed KÖSTER Glass Fiber Mesh into the complete waterproofing

area. Install two gliding layers of polyethylene foil prior to applying the screed.

Consumption

4 - 6 kg/m²

Cleaning

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

Packaging

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32 kg hobbock; liquid component
24 kg, powder component 8 kg

Storage

Store the material in a cool, frost free and dry environment. In originally sealed containers, the material can be stored for a minimum of 6 months.

Safety

The powder component contains cement. Avoid contact with skin. Observe all governmental, state, and local safety regulations when installing the material.

Related products

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| KÖSTER KB-Pox Adhesive | Prod. code J 120 005 |
| KÖSTER Joint Tape 20 | Prod. code J 820 020 |
| KÖSTER Joint Tape 30 | Prod. code J 830 020 |
| KÖSTER Polysil TG 500 | Prod. code M 111 |
| KÖSTER NB 1 Grey | Prod. code W 221 025 |
| KÖSTER Deuxan 2C | Prod. code W 252 032 |
| 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 Universal Cleaner | Prod. code X 910 010 |
| KÖSTER Drill Stirrer | Prod. code X 911 001 |

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