

KÖSTER

Deuxan® 2C

Technical guideline / Article number **1.16**

Issued: November 20, 2009

- Industry classification "Deuxan" registered at the German patent office, K 50 863
- Official test certificate for approval by the building authorities P-2005-4-3472/02-K by the MPA for construction engineering in Dresden, Waterproofing against pressurized and non-pressurized water
- Official test Certificate by the MPA Dresden – according to the guideline of the Association of the German Chemical Industry "Guideline for the design and the application of waterproofing of construction members with ground contact using polymer modified bitumen thick film sealants" from June 1996 in accordance with DIN 18195
- Official test certificate by the AMPA Hannover – slotted disk water pressure test
- Tested for tightness against radon gas



Crack-bridging, stable, 2 component, polymer modified bitumen thick film sealant for waterproofing construction members

Features

KÖSTER Deuxan® 2C is a two component polystyrene-free, fibrated, polymer modified bitumen thick film sealant for the safe waterproofing of building structures. The coating bridges cracks of the substrate safely and against pressurised water. KÖSTER Deuxan® 2C is radon-proof.

Technical data

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
Effectiveness against radon gas	radon-gas-proof

Field of application

KÖSTER Deuxan® 2C is designed for the safe and permanent outside waterproofing of basement walls, foundations, floor plates etc., for intermediate waterproofing of balconies, terraces which do not have inhabited sub-structures as well as for wet- and damp-rooms.

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 Deuxan® 2C has been successfully used in load conditions of pressurised water for many years (Consumption min. 6 kg / m²). The coating 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 max. 5 mm are filled with a scraped layer of KÖSTER Deuxan® 2C. Defects / cavities which are deeper than 5 mm, like for example mortar pockets or open butt- and horizontal-joints, must be closed level beforehand with KÖSTER Repair Mortar. Prior to the application of the waterproofing layer made of KÖSTER Deuxan® 2C, the scraped layer must have dried far enough so that it is not damaged by the subsequent application of 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 Deuxan® 2C. 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 Deuxan® 2C 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 first layer while it is still fresh. The layers have

to be applied shortly after each other using a plastering trowel or steel float. 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 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 kg / m²). Embed KÖSTER Glass Fibre Mesh into 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 24 hours).

Feed throughs / penetrations

Apply KÖSTER Deuxan® 2C in a fillet shape around the feed through or penetration and embed KÖSTER Glass Fibre 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 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. 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 Deuxan® 2C. Avoid stress at single spots only. Dimple sheets, corrugated boards or the like are not suited as protection layers.

Make sure not to damage the fillets when backfilling and compacting non-cohesive soils

Horizontal waterproofing layers

In case of horizontal waterproofing of floor areas, embed KÖSTER Glass Fibre Mesh into the waterproofing layer in order to ensure a

minimum layer thickness. Install two gliding layers of polyethylene foil prior to applying the screed.

Consumption

Minimum: 3 kg / m²
Maximum: 7 kg / m²

Cleaning of tools

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

Packaging

32 kg hobbock (Powder component is inside)

Storage

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

Safety

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 Cleaner	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

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.