




KÖSTER BD 50

Technical Data Sheet B 290 010

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- Test report 857/18/SG from the "Institute of Ceramics and Building Materials" Krakau, Poland according to DIN EN 14891

Solvent-free elastic waterproofing for damp- and wet rooms under tile

	KÖSTER BAUCHEMIE AG Dieselstraße 1-10, 26607 Aurich 18 B 290 EN 14891:2012 Liquid applied water impermeable product for external installations on walls and floors, beneath ceramic tiling
Initial tensile adhesion strength	≥ 0.5 N/mm ²
Tensile strength after contact with water	≥ 0.5 N/mm ²
Tensile adhesion strength after heat aging	≥ 0.5 N/mm ²
Tensile adhesion strength after freeze-thaw cycles	≥ 0.5 N/mm ²
Tensile adhesion strength after contact with lime water	≥ 0,5 N/mm ²
Crack bridging ability	≥ 0.75 mm
Waterproofing	No penetration

Features

KÖSTER BD 50 is a ready-for-use, solvent-free and easy to apply sealing compound for waterproofing surfaces under tile and coverings in damp and wet rooms. Once applied to the substrate, it cures to a highly flexible, waterproof synthetic foil which is highly elastic and crack-bridging. All customary solvent-free, flexible tile adhesives can be applied on top of KÖSTER BD 50. The tile can be laid using the thick-bed or the standard thin-bed method.

Technical Data

Viscosity	pasty
Density	approx. 1.50 g / cm ³
Application temperature above	+ 5 °C
Color	light grey
Solid content	72%
Rel. humidity during application	max. 85%
Wet layer thickness 1st and 2nd coat	0.8 mm (1.2 kg/m ²)
Thickness of cured coat	0.5 mm (1.2 kg/m ²)
Water vapor diffusion	7.6 g / m ² / 24h
Tensile strength	2.1 N / mm ²
Breaking load (N/mm ²)	1.0 N / mm ²
Elongation at break	150%
pH	9
Crack bridging (EN 14891)	≥ 0.75 mm
Adhesion after freeze/thaw (EN 14891)	≥ 0.5 N/mm ²
Adhesion after water immersion (EN 14891)	≥ 0.5 N/mm ²
Adhesion after contact with lime water (EN 14891)	≥ 0.5 N/mm ²

Impermeable to water under pressure at 150 kPa (EN 14891)

Number of layers

Airing time to hand touch

Application of next layer

Drying time before tiling

No penetration

min. 2 layers

approx. 2 hours

approx. 3 hours

approx. 20 h after application of the second layer

Fields of Application

KÖSTER BD 50 forms a seamless- waterproofing layer under tile and coverings on wall- and floor areas in damp and wet rooms, e.g. in showers, bathrooms, kitchens, car washes, garages, etc. KÖSTER BD 50 is the area waterproofing layer under tiles as part of the KÖSTER BD 50 System certified according to DIN EN 14891 and following the DIN 18534.

Substrate

Suitable substrates include, masonry, plasters, plywood, gypsum plaster boards and cement boards -, anhydrite- and magnesite screeds and all kinds of ceramic coverings.

The surface has to be dry, solid, supportive, and level as well as free of oil, grease, dust, and other separating layers. Residual adhesives, paint, and any loose plaster or masonry must be removed. Rear or rising damp must be ruled out. We recommend roughening of non-absorbent surfaces such as glazed tiles by sanding before the application of the waterproofing coat.

Defects up to 5 mm must be filled in advance with KÖSTER BD 50, defects over 5 mm are leveled flush with the surface in advance with KÖSTER WP Mortar. Cracks over 0.5 mm must be filled with a layer of KÖSTER BD 50 into which the KÖSTER Superfleece is then inserted as a reinforcing layer. Then apply another layer of KÖSTER BD 50.

Substrates must first be primed with approx. 50 - 150 g/m² (depending on the absorbency of the substrate) of KÖSTER BD Primer. After applying the primer, wait approx. 1 - 2 hours before applying KÖSTER BD 50.

Application

Primer: 1 x 50 - 150 g/m² KÖSTER BD 50 Primer

Waterproofing: 2 x 0.4 - 0.6 kg/m² KÖSTER BD 50

- Fill voids and defects smaller than 5 mm with KÖSTER BD 50. In the case of cracks > 0.5 mm bridge the crack with KÖSTER Superfleece adhered and overcoated with KÖSTER BD 50 waterproofing. Completely cover the KÖSTER Superfleece.
- Defects larger than 5 mm should be filled flush with KÖSTER WP Mortar or Repair Mortar Plus. Allow to cure for 24 hours before priming and applying KÖSTER BD 50.
- As part of the KÖSTER BD 50 System, details such as corners, wall-floor junctions, pipe penetrations and drainage outlets are reinforced with KÖSTER Superfleece. In all cases the reinforcing piece is bedded into freshly applied KÖSTER BD 50 waterproofing and then overcoated with the same material. The detailing work is always carried out after priming, but

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.

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before the main area waterproofing.

- KÖSTER Superfleece 100mm – highly absorbent and flexible fleece for the reinforcement of wall/floor joints and cracks, for forming internal and external corners and for sealing pipe penetration.
- KÖSTER Superfleece Outlet Sleeve – 350mm x 350mm, for dressing into the floor drain.
- Detailing may also be completed using KÖSTER BD Flex Tape 120 for wall/floor connections/cracks and KÖSTER pre-formed accessories such as KÖSTER BD Internal and External Corners and the KÖSTER BD Floor and Wall Sleeves.
- In areas susceptible to cracking or to strengthen the waterproofing according to project needs, KÖSTER Flex Fabric can be embedded into the fresh first layer of KÖSTER BD 50. Under normal conditions, area reinforcement is not required.
- When used in accordance with DIN 18 534, the second waterproofing layer must be tinted with KÖSTER BD 50 Contrast to ensure that the waterproofing is two-tone. The second layer then becomes dark gray. Per kilo of KÖSTER BD 50, 10 g of KÖSTER BD 50 Contrast are required for coloring. The contrast agent can also be used in higher concentrations or in pure form as a sealant like KÖSTER BD 50.

Mixing and tools

- KÖSTER BD 50 is a 1 component, ready to use product
- The material must be well homogenized in the original bucket before using
- The application can be carried out by brush, roller, or airless spray equipment
- A 1 m² test area can be applied to determine the consumption of primer and material

Notice

- Do not apply KÖSTER BD 50 on damp cementitious substrates or on substrates which are subject to rising damp
- Whenever necessary, sloped surfaces should be created in order to avoid puddle formation
- Do not apply KÖSTER BD 50 alone to cover and protect cracks in the substrate
- KÖSTER BD 50 must be protected from mechanical damage by the use of ceramic or stone tiles
- The final dry thickness of KÖSTER BD 50 must be at least 0.5 mm to form a consistent, continuous flexible coat
- No gaps or cracks in the substrate are acceptable
- For best results, always use KÖSTER BD Flexible Tile Adhesive for laying and adhering tiles

Consumption

Up to: 1.2 kg/m²

Per coat: approx. 0.4 - 0.6 kg/m² (0.8 - 1.2 kg/m² total consumption)

When applying the material with a roller, multiple coats may be necessary.

Cleaning

Clean tools immediately after use with water. Cured material must be mechanically cleaned.

Storage

Store the material cool but frost free. In originally sealed packages it can be stored for a minimum of 12 months.

Safety

Observe all local, state, and federal safety guidelines when applying the material.

Related products

KÖSTER BD 50 Primer	Prod. code B 190 005
KÖSTER BD 50 Contrast	Prod. code B 490 500
KÖSTER BD Flexible Tile Adhesive	Prod. code B 540 025
KÖSTER BD Flex Tape K 120	Prod. code B 931
KÖSTER BD Inside Corner	Prod. code B 932 001
KÖSTER BD Outside Corner	Prod. code B 933 001
KÖSTER BD Wall Sleeve	Prod. code B 934 001
KÖSTER BD Floor Sleeve	Prod. code B 935 001
KÖSTER Superfleece	Prod. code W 412
KÖSTER Flex Fabric	Prod. code W 450 100
KÖSTER WP Mortar	Prod. code W 534 025

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