



KÖSTER Dachflex

Technical Data Sheet R 260 020

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- Industry classification "Dachflex" registered at the German patent office, 395 06 702
- Test Report, College of East Friesland - Water vapor permeability

Solvent-free, breathable and crack-bridging elastomeric waterproofing coating

Features

KÖSTER Dachflex is a solvent free, fast drying, breathable waterproofing liquid membrane based on styrene acrylic dispersions. After full cure it forms a watertight, seamless elastic coat with water vapor permeability and UV reflectance properties and is resistant to weathering, frost, and de-icing salts. The cured coating is resistant to occasional foot traffic.

Advantages:

- Ready to use material (1 component)
- Seamless waterproofing coating
- Good adhesion to multiple substrates
- Durability and resistance to weathering
- Usable as a final coat for UV reflectance
- Reduction of the energetic cooling needs
- Multiple surface application
- Solvent free material

Technical Data

Consistency	Pasty
Application temperature	above +5 °C
Substrate temperature	above +5 °C
Color	white
Tensile strength	> 1.0 N/mm ²
Elongation at break	> 260 %
Density	1.51 g/cm ³
Solids content	75 %
Number of layers	2
Thickness of fresh layers	1.0 mm (1.5 kg/m ²) - 1.5 mm (2 kg/m ²)
Thickness of cured layers	0.75 mm - 1.0 mm
Vapor permeability	7.8 g/m ² d
Equivalent air layer thickness	2.5 m
Sd	
CO ₂ permeability	0.4 g/m ² d
Rel. Humidity during application	max. 85 %
Drying time to hand touch	approx. 2 h*
Drying time for second layer	approx. 3 h*
Drying time in cracks (0.5 mm)	approx. 12 h*
*(+23 °C, 65 % rel. H.)	

Fields of Application

For waterproofing newly built roofs and facades, and for the protection and restoration of façade and roof surfaces made of concrete tiles, bituminous materials, fibre cement sheets, old paints and screed. KÖSTER Dachflex can also be used in flat roofs that are not covered (e.g. over garages, carports with little use). A minimum slope of 2 % must be maintained.

As a repair material it is widely used in facades as a crack repair system in multiple details.

- Crack-Repair system for facades
- Repair of old waterproofing coatings

- Repair system around window frames in facades
- Waterproofing coating on sloped roofs and facades

Substrate

Suitable substrates include concrete, screeds, mortars, fiber-cement plates, asbestos, aggregate covered bituminous membranes (without aluminum lamination), zinc, steel, aluminum, wood, and ceramic tiles. The substrate should be dry to slightly damp, solid, clean, free of loose particles, laitance, efflorescence, formwork release agents, moss, algae, or any other bond-inhibiting substances. Clean off dust completely.

Dilation joints, cracks, and construction joints must be treated with KÖSTER Joint Tape 20/30 (according to the size of the joint) adhered with KÖSTER KB-Pox Adhesive. Alternatively KÖSTER FS Joint Sealant or KÖSTER PU-Flex 25 can be used.

Substrate preparation is described according to substrate type in the application section.

Application

Mineral Substrates

Minimum 2 layers of KÖSTER Dachflex (0.75 - 1.0 kg/m² per coat, 1.5 - 2.0 kg/m² total consumption). A third layer may be used as a scratch coat to fill surface roughness or as a final layer for texturing.

- Fill voids and cavities smaller than 5 mm with KÖSTER Dachflex.

- All defects larger than 5 mm are levelled with KÖSTER Repair Mortar Plus. The Mortar must cure for 24 hours before applying KÖSTER Dachflex.

- In case of cracks larger than 0.5 mm, bridge the crack with KÖSTER Flex Fabric (10 cm strip) adhered with KÖSTER Dachflex and subsequently brush KÖSTER Dachflex on top of the strip until it is completely covered.

- Surface preparation methods for concrete and mortars can include high-pressure water jetting, sandblasting, shotblasting, and grinding. In case of absorbent substrates apply a layer of KÖSTER Dachflex diluted 1:1 with clean, potable water as a primer (consumption 100 - 200 g of the diluted material). The total consumption is increased by this primer.

- Concrete substrates must cure for a minimum of 28 days before application.

- On concrete or mortars with existing paints or coatings a pull-off test to verify the existing bond must be carried out. Values under 0.8 N/mm² are unacceptable. In such cases the existing paint or coating must be completely removed until a sound, solid, clean substrate is reached. Substrates with a pull-off strength of > 0.8 N/mm² are power washed before application.

Aggregate covered bituminous membrane substrates

Minimum 2 layers of KÖSTER Dachflex (0.75 - 1.0 kg/m² per coat, 1.5 - 2.0 kg/m² total consumption). A third layer may be used as a scratch coat to fill surface roughness or as a final layer for texturing.

- Prepare the surface by high-pressure water jetting. Allow to dry.

- Cut all bubbles open in an X and lift the edges. Clean and fill the area

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underneath with KÖSTER Dachflex and adhere the edges by pressing it onto the substrate. Allow the material to cure. Cover the area with KÖSTER Dachflex with KÖSTER Flex Fabric embedded in the fresh first layer. Apply the area waterproofing with KÖSTER Dachflex in two coats.

- All cracks must be securely bridged with KÖSTER Flex Fabric cut into 10 cm wide strips and fully embedded into the KÖSTER Dachflex.
- Depending on the type and age of the bitumen discoloration may occur. This has no effect on the functionality of KÖSTER Dachflex. If desired carry out tests beforehand.

Metal substrates

Minimum 2 layers of KÖSTER Dachflex (0.75 - 1.0 kg/m² per coat, 1.5 - 2.0 kg/m² total consumption). A third layer may be used as a final layer for texturing.

- Metal substrates must be clean and without any bond inhibiting substances such as oil and grease often applied as a corrosion inhibitor.
- Surface preparation methods for metal surfaces may include sandblasting or cleaning with solvents. Allow all solvents to fully evaporate before application. High pressure water jetting may also be appropriate under some circumstances.

Repairing cracks in Facades

One layer as Primer, consumption KÖSTER Dachflex 25 - 50 g/m, minimum 2 layers of KÖSTER Dachflex (130 - 175 g/m² per coat) A third layer may be used as a scratch coat to fill surface roughness or as a final layer for texturing.

- Dilute KÖSTER Dachflex 1:4 with water. Apply as a primer over the area to be coated.
- Cut KÖSTER Flex Fabric into 10 cm strips.
- Apply a layer of KÖSTER Dachflex 15 cm wide over the crack. Embed the KÖSTER Flex Fabric into the fresh material, overlapping the strips 5 cm.
- Immediately or after curing apply a second 20 cm wide layer of KÖSTER Dachflex over the KÖSTER Flex Fabric, so that the material is completely covered and the pattern of the KÖSTER Flex Fabric no longer shows.
- Use an application method (roller, brush or spray equipment) which mimics the texture of the facade.
- After cure, a final layer may be applied to smooth transitions and texture the repair.
- The whole area may be painted with an elastomeric paint.

Mixing and tools

- KÖSTER Dachflex is a one component, ready to use product.
- Mix the material in the original bucket to homogeneity before use.
- It can be thinned with up to 5 % potable water after it has been mixed to homogeneity.
- Dilution lowers the stability of the KÖSTER Dachflex.
- The application can be achieved with a variety of tools; brushes, rollers, or with an airless spraying device.

Notice:

- Obey all local, state, and federal codes and regulations regarding the waterproofing of flat roofs.
- All values given for consumption may vary according to the substrate conditions and the waterproofing requirements for each application. All cracks and joints must be addressed before applying the area waterproofing.
- Apply a supplementary layer on all connections, terminations, or overlaps before the main area waterproofing coats. On vertical

intersections or on wall/floor junctions, install a fillet made of KÖSTER Repair Mortar approx. 24 hours prior to the application of KÖSTER Dachflex.

- The drying time of the coats is extended by low temperatures and/or high humidity.
- KÖSTER Dachflex is considered a finishing coat.
- Do not mechanically load the coating with objects that can damage it.
- Do not use as a coat for submerged surfaces.
- When bridging cracks in substrates (not by Facade repair) the fleece should not be bonded to the crack surface, but instead be separated by 1 cm to effectively bridge it. The upper section of the mesh must be completely covered.
- Do not apply on substrates subjected to condensation or water saturated.
- The ingress of moisture in any form must be excluded until it is completely dry

Consumption

0.75 - 1.0 kg/m² per coat; 1.5 to 2.0 kg/m² total consumption
50 - 100 g/m² for priming coats

When using a roller for application, more coats may be necessary.

Cleaning

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

Packaging

R 260 020 20 kg bucket

Storage

Store the material cool but frost-free. In originally sealed packages it can be stored for a minimum of 12 months. Water which has separated on the surface can be stirred in.

Safety

Observe all governmental, state, and local safety regulations when processing the material.

Other

Note:

- KÖSTER Dachflex is not intended to be used on waterproofing of balconies and terraces under tiles.
- After the KÖSTER Dachflex has hardened, the coating must not be exposed to permanent or temporary puddles.

Related products

KÖSTER KB-Pox Adhesive	Prod. code J 120 005
KÖSTER FS Primer 2C	Prod. code J 139 200
KÖSTER Joint Sealant FS-V black	Prod. code J 231
KÖSTER Joint Sealant FS-H black	Prod. code J 232
KÖSTER PU-Flex 25	Prod. code J 235
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 Superfleece	Prod. code W 412
KÖSTER Flex Fabric	Prod. code W 450 100
KÖSTER Repair Mortar	Prod. code W 530 025
KÖSTER Repair Mortar Plus	Prod. code W 532 025
KÖSTER Brush for Liquids	Prod. code W 912 001

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