

KÖSTER KSK SY 15

Technical guideline / Article Number
Issued: March 15, 2010


10.321

- Radon impermeability test – University of Saarland

Cold self-adhesive bitumen membrane with HDPE top foil (moisture barrier type A and ground water barrier type T)

Features

KÖSTER KSK SY 15 consists of a highly tear resistant, 2-layer cross-laminated, polyethylene foil with a plastic bitumen / rubber adhesive- and sealing-compound. It is cold applied and therefore no hot air or propane gas welding is required for application. Due to its high ductility, it can also be easily applied to difficult details. The sealing membrane is highly flexible, immediately waterproof, resistant to driving rain and crack bridging. KÖSTER KSK SY 15 is radon proof.

<p style="text-align: center;">  KÖSTER Waterproofing Systems KÖSTER BAUCHEMIE AG Dieselstraße 3-10 26607 Aurich, Germany 07 1349-CPD-033 </p>	
<p style="text-align: center;"> EN 13090 KÖSTER KSK SY 15 Cold self adhesive bitumen membrane with HDPE-top foil Moisture barrier (Type A) and ground water barrier (Type T) </p>	
Flammability Tensile strength lengthwise/ crosswise Elongation at break Waterproof at 60kPa Resistance to continued tearing lengthwise/ crosswise Resistance of the joint seams to shearing Cold bending properties Permanently resistant to Aging: Chemicals: Resistance to static loads	Length of roll: 20 m Width: 1.05 m Effective thickness: 1.5 mm Class E 250 ± 50 N/50 mm 200 ± 50% passed 150 ± 50 N 130 ± 30 N/50 mm ≤ - 30 °C passed passed 20 kg

Technical data

Thickness according to DIN EN 1849-12	1.5 mm
Length according to DIN EN 1848-12	20 m
Width according to DIN EN 1848-21	1.05 m
Straightness according to DIN EN 1848-1	≤ 20 mm / 10 m
Flammability according to DIN EN 13501-1	Class E
Tensile strength according to DIN EN 12311-1	250 ± 50 N / 50 mm
Elongation at break according to DIN EN 12311-1	200 ± 50 %
Waterproof 60 kPa according to DIN EN 1928	passed
Resistant to static loads DIN EN 12730 procedure B	> 20 kg

Resistance against artificial aging according to DIN EN

1296 and 1928, procedure. B (test pressure 60 kPa) passed

Resistance against chemicals according to DIN EN

1847 and 1928 procedure B (Test pressure 60 kPa)

- 10 % NaCl passed

- Lime milk passed

- 6 % Sulfuric acid passed

Resistance to water vapour diffusion μ < 130,000

Resistance to continued tearing lengthwise

/ crosswise according to DIN EN 12310-1 150 N ± 50 N

Cold bending properties according to DIN EN 1109 ≤ - 30°C

Resistance of the joint seams to shearing

according to DIN EN 12317-1 130 ± 30 N / 50 mm

Field of application

KÖSTER KSK SY 15 is suited for waterproofing horizontal and vertical surfaces of structures and/or structural members according to DIN 18195 such as e. g. foundation plates, wet rooms, basement floors, balconies, terraces etc.

KÖSTER KSK SY 15 is also suited for waterproofing polystyrene elements.

Substrate preparation

The substrate has to be clean, dry, even and without edges or voids. It should be mineral, polystyrene or wooden. In case of basement walls made of masonry, the joints have to be closed flush. A thin coat of KÖSTER KBE Liquid Foil is applied to the substrate (Consumption: approx. 250 – 500 g / m²). The priming layer must dry completely. Apply the membrane on the same day. In case of strongly absorbent substrates (e. g. porous concrete), a second primer coat is necessary.

In the junction from the horizontal to the vertical waterproofing and on protrusions of the foundation, fillets with a leg length of 4 – 6 cm should be installed using a cement mortar, e. g. KÖSTER Repair Mortar, and be allowed to cure fully (min. waiting time: 24 hours).

Application

For cutting membranes, always use a sharp knife. To avoid getting the knife stuck, wet the blade repeatedly. Avoid cutting the

material when it has been exposed to heat or direct sunlight. Remove the backing paper after cutting the membrane.

Cutting membranes to length is facilitated by laying a piece of wood on top of the membrane along the course of the cut as a cutting support. Do not apply KÖSTER KSK SY 15 at temperatures below + 5 °C.

Also available: The KÖSTER KSK application guideline contains an easy to follow pictured guideline for application of KÖSTER cold self adhesive membranes.

Horizontal waterproofing

On top of the fillet, an approx. 30 cm wide stripe is applied as corner reinforcement. Then apply the vertical and the horizontal layers on top of the stripe. Roll out membranes or pre-cut pieces in a length of approx. 50 – 80 cm, remove approx. 30 – 50 cm of the backing paper at the beginning of the membrane and press the exposed adhesive layer onto the substrate beginning from the middle. Avoid air-enclosures and wrinkles. Pull the backing paper through from under the roll and pull it off while unrolling the membrane. Firmly press on applied membranes especially in the overlapping- and edge-areas (e. g. with a hand roller). Overlap the next membrane in the overlapping area for approx. 10 cm. On overlappings, press the membranes on to each other especially thoroughly. Connections to metal are carried out using a stripe of KÖSTER Fix-Tape 10 ALU. All inside corners are equipped with a fillet profile.

Cover garage roofs after waterproofing with levelling felt and apply a screed or round gravel 16 / 32, 5 cm thick on top of that

Vertical waterproofing of basement walls

1. All interior and exterior corners are reinforced by applying pre-cut membrane pieces, about 30 cm wide. Remove the backing paper just before applying the membrane to the surface.
2. Waterproofing of the especially demanding points where internal and external corners intersect the wall floor junction is done using specially cut pieces of membrane; refer to the KÖSTER KSK application guideline for details.
3. Waterproof wall surfaces beginning from the base area (approx. 30 cm above ground level), proceeding downwards to the wall floor junction and on to the side of the foundation. Cut the membrane to the required length. Apply the membrane by removing the protective paper and pressing the membrane onto the substrate. Overlap the edge of the previously applied membrane by 10 cm.

All overlapping areas of the membranes must be firmly pressed

together using a roller. Remove the backing paper from the self-adhesive edge before applying the next membrane.

4. In order to avoid the infiltration of water behind the membrane, seal all ends of the waterproofing layers, e. g. the ends of the membranes on the side of the foundation, the ends in the upper base area as well as around pipe penetrations and other junctions and endings, with undiluted KÖSTER KBE Liquid Film. Mechanically fix the upper ends of the membranes with large headed zinc coated nails (5 pieces / m) or with a fixing profile. In case of rough substrates and in case of e. g. porous concrete, a second coat must be applied after the first coat has fully dried. Around pipe penetrations, embed KÖSTER Glass Fibre Mesh into the KÖSTER KBE Liquid Film.

5. Protect the KÖSTER KSK SY 15 with KÖSTER Protection and Drainage Sheet 3-400 from damages due to backfilling.

The construction pits for vertically waterproofed areas, to which KÖSTER KSK SY 15 was applied, must be backfilled immediately after full cure of the KÖSTER KBE Liquid Film. Horizontal areas must be covered and pressed on within two weeks after their application.

Special field of application

KÖSTER KSK SY 15 is radon- and methane-proof. The previously stated application directions are suited also for carrying out radon- and methane-proof sealing layers.

Cleaning of tools

Clean sticky cutting tools with KÖSTER Bitumen Remover.

Trading units

21 m² rolls, width: 1.05 m, length 20.00 m

Storage

Do not expose rolls to low temperatures or direct sunlight. Store rolls standing upright. Protect from pressure and moisture.

Technical guidelines cited

KÖSTER KBE Liquid Film	Art. No.	1.13
KÖSTER Repair Mortar	Art. No.	5.030
KÖSTER Fix-Tape 10 ALU	Art. No.	7.30
KÖSTER Bitumen Remover	Art. No.	9.03
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.