



Technical Data Sheet

ADF[®]-KE-F

Art.-No. 2 05951

Waterproof sheet membrane laminated polyester fleece with single sided adhesive and welding edge

Properties:

- Waterproof and vapour barrier
- Reinforced by the incorporation of a glass fibre mat
- Mineral based for bonding
- Suitable for single layer installation
- Flexible and tear resistant in accordance with DIN 18195-2
- Compatible with bitumen
- Alkali resistant
- Resistant to weathering, ageing, UV and ozone
- Root resistant to FLL guidelines
- Free from plasticizers

Areas of application:

For the secure and efficient waterproofing of building components in direct ground contact, flat roofs, bridges and tunnel constructions. ADF-KE-F can be applied on either horizontal or vertical surfaces.

Wet duty demands:

- Ground moisture / non standing seepage water
- Water not under pressure
- Standing seepage water / water under pressure

Technical Data:

Basis:	ethylene bitumen copolymer (ECB)
Colour:	black with fleece laminate
Application temp:	-30° C up to +40° C
Fire rating (DIN EN 13501-1):	class E
Watertightness (DIN EN 1928, method B 600 kpa/24 hrs:	passed
Water impermeability in accordance with DIN EN 12390-8:	7 bar
Coefficient of water vapour transmission μ (DIN EN 1931):	approx. 90,000

Maximum tensile strength

(DIN EN 12311-2): longitudinal: > 800 N/50 mm
transverse: > 600 N/50 mm

Elongation at break

(DIN EN 12311-2): longitudinal: > 40%
transverse: > 40%

Shear resistance of welded seam

(DIN EN 12317-2): > 400 N/50 mm

Resistance to impact

(DIN EN 12691): > 700 mm

Resistance to static load

(DIN 12730): > 20 kg

Nail tear resistance

(DIN EN 12310-1): > 300 N/50 mm

Low temperature flexibility

(DIN EN 495-5): > -30°C

Width:

1.05 m (with 5 cm non-laminated adhesive edge)

Length:

20 m

Thickness:

1.8 mm + 0.3 mm

fleece laminate

Weight per unit area:

approx. 1.96 kg/m²

Storage:

dry, minimum 5 years

Surface preparation:

The surface to be waterproofed must be dry, load bearing, largely flat and free from surface pockets, cracks and ridges, free from foreign substances and free from oil, grease and paint. Remove cement laitance and fine particulate components. Fully point masonry work. Using ASOCRETRN, make good existing gravel pockets or voids in concrete as well as bay markers chopped out to 2 cm.

When using beneath foundation slabs (concrete on a non-woven layer) on compacted, load stable anti-capillary layers there must not be any sharp or pointed objects present. Shuttering as well as thermal insulation etc. may not deform during concreting work. With vertical applications the uppermost termination of the

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membrane must be secured with appropriate waterproofing bars.

Product application:

- a) Adhesive method with mineral-based ADF-Systemkleber when waterproofing components in direct ground contact: Cut the ADF-KE-F to the required length and re-roll the cut piece. Apply the ADF-Systemkleber by trowel to the properly prepared substrate with an 8 mm notched trowel. Now position the cut section onto the prepared substrate and press down with a smoother, roller or similar. Greater adhesion is achieved by pressing the waterproof membrane into place without folds or air bubbles. In this manner lay the individual membrane sections with butt joints. Once the adhesive has dried out, the butt joints are subsequently waterproofed dependent on the wet duty demands.
- b) Application as negative waterproofing beneath foundation slabs (concrete on non-woven layers). On to the adequately compacted load stable anti-capillary layer or granular sub-base (concrete or thermal insulation), lay the ADF-KE-F in sections dependent on the wet duty demands (either butt jointed or overlapped). The minimum width of overlap is 5 cm. When carrying out further work steps e.g. laying reinforcement, avoid causing damage. The spacers used should also have a large contact area. The concreting on the foundation slab must be carried out professionally to current standards and regulations. It is to be especially ensured that the concreting is without voids and that a complete bond is achieved with the fleece layer. However avoid direct contact between the ADF-KE-F and the concrete vibrator.
- c) Application as negative waterproofing on shuttered constructions (concreting on the non-woven layer). Using nail gripper rods fix the ADF-KE-F to the top edge of the shuttering construction in sections dependent on the wet duty demands (either butt

jointed or overlapped). The minimum overlap width is to be 5 cm. Avoid causing damage when carrying out further work e.g. laying reinforcement or spacer supports. It is to be especially ensured that the concreting is without voids (gravel pockets) and that a complete bond is achieved with the fleece layer. However avoid direct contact between the ADF-KE-F and the concrete vibrator.

Waterproofing butt joints:

The waterproofing of butt joints is carried out dependent on the wet duty demands:

- Ground moisture, non standing seepage water – butt jointed or overlapped with the cold self-adhesive KSK-Abdichtungsbahn-FB.
- Water not under pressure overlapped using the heat-sealing technique.
- Standing seepage water / water under pressure overlapped using the heat-sealing technique.

The minimum overlap width is 5 cm.

System components:

For waterproofing details various shaped pieces are available:

- Internal and external corners
- Flange collars for pipe and cable penetrations
- Flange collars for inlets

Hot weld technique:

Equipment parameters:

- Hot air tool 220V with infinitely variable temperature adjustment up to +600° C and air quantity regulator
- Heat performance >1400 Watt
- 40 mm wide slotted nozzle (perforated underside)

Welding of the sheet membrane ADF-KE-F is carried out with a hand held welder (e.g. Leister Triac) at a temperature from +450° C to +650° C (approx. position 6.5). The waterproof membrane is overlapped and pre-tacked at a maximum distance of 50 cm parallel to the membrane. Subsequently the hand welder is slowly moved along at an angle of approx.

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30°. During the process the film parallel to the edge of the membrane is pressed down with a silicone roller with moderate pressure of > 5-6 kp until a welded seam on the joint edges is achieved. The welding is to take place over a width of approx. 4 cm.

A welding bead longitudinal to the seam can be considered as a sign of an optimum joint seam and a professional weld. The joint seams are immediately sealed and can be put into full service after 24 hours.

Carry out trial areas of weld before heat sealing. For applications on thermal insulation, use suitable mats that can be pulled along when welding. Clean the welding zone free from adhesion inhibiting materials. Do not use any solvents or seam cleaners during this process.

Advice:

- Observe a current EU Health & Safety Data Sheet.