Kalzip® vapour layer FR
Product information 08/22

The Kalzip vapour layer FR is a self-adhesive vapourbarrier with a low fire load made of tear-proof, fabricreinforced laminated aluminium foil in accordance with the requirements of EN 13984.

Product structure:

Upper layer: fabric-reinforced laminated aluminium foil

Lowe Layer: Self-adhesive coating with film cover

Product advantages:

- CE certification according to EN 13984
- Meets the requirements of DIN 18234 "Fire safety of large roofs for buildings"
- Very high vapour tightness (SD: ≥ 1.500 m)
- Quick and easy installation
- Low mass per unit area
- Low fire load
- Suitable as temporary waterproofing for roofs with gradients of more than 2° (max. 14 days)
- Very high tear resistance, therefore good walkability and workability

Area of application

The Kalzip vapour barrier FR is used as a low fire load vapour barrier membrane for roofs with increased fire protection requirements in accordance with legal regulations. This is preferably the case on substructures made of trapezoidal steel profile liners.

Application notes

The adhesive surfaces must be dry and free from dust, grease and oil. The minimum processing temperature is +5 °C. On plastic- coated trapezoidal steel liners no primer is required. On other surfaces such as galvanised sheet steel etc. a bituminous primer should be applied. The Kalzip vapour layer FR should be applied parallel to the upper chords by peeling off the protective film on the underside.

The longitudinal seams must be glued on the upper chords. Longitudinal and transverse seams must be sealed with a minimum overlap 8 cm by pressing or rolling.

At all connections, terminations and penetrations the vapour barrier must be brought up to the upper level of the thermal insulation and sealed air- and vapour-tight. In the sealed original packaging the vapour layer can be stored for approx. 12 months in dry, well ventilated rooms that are protected from light and kept at a constant temperature of 20 °C. On site suitable measures should be taken to protect opened pallets and rolls from moisture and rain. The rolls should be stored vertically.

Temporary sealing

Temporary sealing with vapour barriers is not permitted according to the current flat roof guideline. Therefore, the Kalzip vapour barrier FR should be applied as soon as possible before subsequent layers. If an interruption of work is necessary and cannot be avoided, a vapour barrier in accordance with DIN 18531 can be exposed to the elements for up to 14 days with a minimum slope of at least 2 %. No standing water may remain on the roof surface.

Technical data:

Packaging unit	
Roll width	1.58 m
Roll length	50 m
Weight approx.	Ca. 160 g/ m^2
Pallet unit	24 rolls per pallet

Property according to DIN EN 13970	**Test procedure**	**Product performance**
Watertightness	DIN EN 1928	passed
Water vapour permeability	DIN EN 1931	S_d-value ≥ 1.500 m
Behaviour in case of fire	DIN EN 13501-1	Class E
Tear resistance	DIN EN 12310-1	longitudinal: ≥ 70 N transverse: ≥ 80 N
Joint shear resistance (bond seam)	DIN EN 12317-2	≥ 150 N/ 50 mm
Tensile strength	DIN EN 12311-1	Maximum tensile strength longitudinal: ≥ 250 N/50 mm transverse: ≥ 250 N/50 mm Elongation at maximum tensile strengtht longitudinal: ≥ 10 % transverse: ≥ 10 %
Durability after artificial ageing	DIN EN 1296 DIN EN 1931	passed
Durability of waterproofing against chemicals (alkali resistance)	DIN EN 1847 DIN EN 1931	passed
Thickness	DIN EN 1849-2	0.20 mm ± 0.05 mm
Width	DIN EN 1848-2	1.58 m ± 2 %
Area-related weight	DIN EN 1849-2	150 g ± 15 %
Cold bending behaviour	DIN EN 1109	≤ 20 °C, passed
Resistance to shock load	DIN EN 12691	Procedure A, drop height 100 mm, tight Procedure B, drop height 250 mm, tight

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