

LAM-AL / LAM-CU

Self protected membrane with laminated metal sheet

Technical data sheet



Description

Prefabricated waterproofing membrane, composed of a special compound based on modified bitumen with a new generation of elastomeric polymers (BPE), reinforced with a woven non woven fiberglass mat.

The upper surface is self protected with a laminated aluminum (LAM-AL) or copper sheet (LAM-CU).

The self protection with a metal laminated sheet, besides providing aesthetic characteristics to the product, protects the membrane from atmospheric agents and allow a sufficient reflection of the sun rays, increasing the durability.

To allow for a proper bond between the sheets, the protected is supplied with a side selvedge.

Areas of application

The characteristics of the membranes LAM-AL & LAM-CU are such that the products can be used with success to waterproof a wide range of areas such as civil and industrial buildings, especially for those with aesthetic or architectural requirements.

In virtue of the particular formulation the membranes LAM-AL & LAM-CU are compatible with all the PLUVITEC membranes, both APP or SBS.

LAM-CU and LAM-AL can be used, depending on the type of construction and design, in multilayer, where it is always recommended to use a membrane with a minimum thickness of 3 mm as first layer (alternatively use Plura Thermo Adesivo P 2,5 mm or Plura Self-adhesive Zero P 3 mm).

Use of product

The application of the membrane is generally by torch or hot air, making sure that both side & head laps are done properly, avoiding to direct the flame directly on the self protecting metal sheet, to avoid possible problems of delamination. In a particular way it is suggested to remove a 15 cm strip of the self protecting metal sheet on the head lap before applying the next sheet.

It is not recommended to apply by torch when using on heat sensitive materials (ex. polystyrene insulation).

Depending on the type of structure and project, the membranes can be applied fully bonded to the base sheet membrane. The details (perimeter, protruding objects, etc.), verticals and applications in correspondence to change of slope, must be done with particular care.

For applications on structures with risk of movement, reduce the length of the rolls to 5 meters.

For further information we recommend to consult PLUVITEC's technical literature.

Recommendations

To obtain the most from the technical characteristics of the membranes LAM-AL & LAM-CU and therefore guaranteeing the maximum reliability and durability of the completed works, it is suggested to follow some simple fundamental rules.

- The rolls are to be stored in an upright position, preferably indoors in a dry and ventilated area, away from sources of heat and avoiding to stack them one on top of the other to avoid possible deformation which may compromise the application. It is recommended to store the material at temperatures above 0°C.
- The application surface must be smooth dry & clean with at least a 10% slope.
- The application surface must be previously treated with a suitable bituminous primer, to eliminate dust and enhance the adhesion of the membrane.
- The application surface must not have any depressions to avoid ponding water, and must have a sufficient slope to guarantee the run off of rain water.
- In situations of application on vertical surfaces superior to 2 meters or on very sloped substrates, apply suitable mechanical fixings to the head laps, after which they will be sealed when torching the head laps.
- The application must be done at temperature higher than +5°C.
- The application must be interrupted in adverse weather conditions (high humidity, rain, etc.).
- Avoid directing the flame on the self protecting metal laminated sheet but towards the lower surface of the membrane.
- If applying the material on roofs with insulation, a vapor barrier membrane below the insulation itself is recommended with the use of air vents.

Technical data

Technical characteristics	Norm	Aluminum 3 kg/m ²	Aluminum 4 kg/m ²	Copper 4 kg/m ²	Tolerance
Visible faults	UNI EN 1850-1	absent			
Straightness	UNI EN 1848-1	10 mm			≤
Dimensions		Width 1 m (-1%) Length 10 m (-1%) Weight 3 kg/m ²	Width 1 m (-1%) Length 10 m (-1%) Weight 4 kg/m ²	Width 1 m (-1%) Length 10 m (-1%) Weight 4 kg/m ²	≥ ≥ 10%
Reinforcement		Fiberglass		Woven fiberglass mat	
Upper surface finish		Laminated aluminum		Laminated copper	
European reference norm		UNI EN 13707			
Application/usage		Torch; finishing layer			
Cold Flexibility	UNI EN 1109	New -25 °C Aged -20 °C			≤ +15 °C
Dimensional stability	UNI EN 1107-1	NPD			
Tensile strength L/T	UNI EN 12311-1	650/550 N/50 mm		1400/1200 N/50 mm	-20%
Flow resistance	EN 1110	100 °C			≥
Elongation to break L/T	UNI EN 12311-1	3/3 %		5/5 %	-2
Tearing resistance	UNI EN 12310-1	150/150 N		200/200 N	-30%
Watertightness	UNI EN 1928	60 kPa			≥
Static puncture resistance	UNI EN 12730	NPD			
Dynamic puncture resistance	UNI EN 12691	NPD			
Vapour permeability	UNI EN 1931	20000 μ			
Fire reaction	EN 13501-1	"F" Class			
External fire resistance	EN 13501-5	F ROOF			
Form stability under cyclic temperature changes	EN 1108	2 mm			≤

Packaging

	LAM-AL 3 kg/m ²	LAM-AL 4 kg/m ²	LAM-CU 4 kg/m ²
Roll dimensions	10x1	10x1	10x1
Rolls per PIt	25	25	25

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