



Self protected membrane with laminated metal sheet LAM-AL / LAM-CU

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 GECO 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 Gecoself T.A. P 2,5 mm or Gecoself HP 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 GECO's technical literature.

Recommendations

To obtain the most from the technical characteristics of the membranes LAM-CU & LAM-AL 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 +5°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 | Reference norm | M.U. | Aluminum 3 kg/m ² | Aluminum 4 kg/m ² | Copper 4 kg/m ² | Tol. |
|---|----------------------------|------------|--|--|--|------------|
| Visible defects | UNI EN 1850-1 | | none | | | |
| Straightness | UNI EN 1848-1 | mm | 10 | | | ≤ |
| Dimensions | UNI EN 1848-1 | | 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 | |
| Weight | UNI EN 1849-1 | | | | | 10% |
| Reinforcement | | | Fiberglass mat | | 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 UNI EN 1296 | °C | New -25 °C Aged -20 °C | | | ≤ +15°C |
| Dimensional stability L | UNI EN 1107-1 | | NPD | | | |
| Flow resistance | EN 1110 | | 100 | | | ≥ |
| Tensile strength L/T | UNI EN 12311-1 | N/50 mm | 650/550 | | 1400/1200 | -20% |
| Elongation to break L/T | UNI EN 12311-1 | % | 3/3 | | 5/5 | -2 |
| Tearing resistance L/T | UNI EN 12310-1 | N | 150/150 | | 200/200 | -30% |
| Watertightness | UNI EN 1928 | kPa | 60 | | | ≥ |
| Static puncture resistance | UNI EN 12730 | | NPD | | | |
| Dynamic puncture resistance | UNI EN 12691 | | NPD | | | |
| Fire resistance | EN 13501-5 | | F ROOF | | | |
| Fire reaction | EN 13501-1 | | "E" class | | | |
| Vapour permeability | UNI EN 1931 | μ | 20.000 | | | |
| Form stability under cyclic temperature changes | EN 1108 | mm | 2 | | | ≤ |

| Packaging | Aluminum 3 kg/m ² | Aluminum 4 kg/m ² | Copper 4 kg/m ² |
|---------------------|---------------------------------|---------------------------------|-------------------------------|
| Roll dimensions (m) | 10x1 | 10x1 | 10x1 |
| Rolls per plt | 25 | 25 | 25 |

We reserve the rights to change or modify the nominal values without prior notice or advice. The information contained in this data sheet are based on our experience. We cannot take any responsibility for a possible incorrect use of the products. The customer has to choose under their own responsibility a product fit for the intended use.