



Stratigraphy

- 1 PE film
- 2 Waterproofing mass
- 3 Single strand composite polyester reinforcement
- 4 Waterproofing mass
- 5 Mineral finish

Description

Elastomeric polymer (SBS type) and distilled bitumen-based prefabricated waterproofing membrane. LARIX HP HAIL PROOF has a composite reinforcement in spunbonded non woven polyester fabric with high mechanical properties and excellent dimensional stability. The membrane is self-protected on the upper face with granules of natural slate which in addition to offering an aesthetical finish provides protection against UV radiation and heat in this way preserving the roof covering from aging. 10 cm side selvedge, and if requested a 15 cm head selvedge, has been left to improve overlapping of rolls. The lower face is protected by a burn-off polyethylene film that allows you to check anytime the ideal melting point of the waterproofing compound.

Certification

To obtain an evaluation of the membrane's resistance to hail, we have tested the LARIX HP 4 mm in the Giordano S.p.A. institute in accordance with the UNI EN 13583:2012 regulations (test report no. 334156). Frontal mode:

After positioning the sample on the support with the top layer facing upwards, the trial area was covered with 200 g of crushed ice for 3 minutes. After removing the ice, the launching of polyamide balls commenced at a velocity expected to cause damage on n. 5 specimens placed both a soft and rigid supports.

Test results:

- Rigid support (steel base): damage velocity "dV" 38 m/s (c.a. 137 km/h).
- Soft support (polystyrene foam thickness 20 mm and volumetric mass 20 kg/m³): damage velocity "dV" 50 m/s (c.a. 180 km/h).

Methods of application

- The membrane is usually applied by heating the bituminous blend using a gas burner or hot air guns in special cases.
- Always use the individual protection devices specified by law.
- Never use application by heating on heat-sensitive supports or insulation.
- Conduct regular maintenance on the roof in order to remove detritus, mud, grass, etc., and to keep the operation of the waterproofing system and accessories (drains, TV antennas, air-conditioning systems, etc.) under control.
- Whenever there is reason to believe that the element to be waterproofed has traces of residual humidity (e.g. during renovations of existing roof coverings, applications after abundant rainfall), vents should be positioned in such way as to permit its elimination.

For more information and instructions, we recommend consulting LARIBIT application manual, remembering that our Technical Support Service is always at your disposal to solve particular problems and provide the assistance necessary in using our waterproofing membranes to best advantage.

Advantages

- The high elasticity of the SBS-type compound with flexibility at low temperatures up to -25°C is ideal for ensuring optimum adhesion to the support and for best impact resistance.
- The reinforcement of the spunbonded polyester with elevated mechanical properties and excellent dimensional stability is perfect for coverings subject to dimensional variations. Additionally, the elevated bulk of the reinforcement allows for the obtaining of excellent puncture resistance.
- The thickness of 4 mm measured on the selvedge allows utilisation in a single layer and increases the impact resistance.
- The self-protection in mineral slate allows for utilisation as a top layer and increases resistance to cutting caused by hail.

Fields of use



EN13583 Resistance to hail (Certificate n° 334156)

N° LAYERS	METHOD OF APPLICATION		TYPE OF APPLICATION			TYPE										
	Single Layer	Double Layer	Torch	Hot Air	Mixed (Torch / Air)	Cold Bond Glue	Mechanical Fixing	Thermo Adhesive / Self Adhesive	Fully Bonded	Partially Bonded	Loose Laid	Complimentary Layer	Top Layer	Heavy Protection	Anti-root	Other Uses
•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

LARIX HP HAIL PROOF PA 4 MM

The waterproofing membrane based on distilled bitumen and polymers, as shown in this data sheet does not require the issue of a MSDS, because it does not contain dangerous substances. The information data sheet for the proper use of products is available.

Application

- On cementitious surfaces and similar apply, by roller or airless, bituminous primer, approx. consumption 300/400 g/m².
- Apply by torch application a 25 cm strip of membrane reinforced with polyester along all vertical up stands.
- To have all overlaps with the slope, position the membrane always starting from the lowest point. (Draw. N.1)
- Position the membrane sheets staggered, avoiding to create any overlaps against the slope and the drains. (Draw. N.2)
- Cut the corners of membrane sheet which will be laid under the next sheet at a 45° angle (10 x 10 cm). (Draw. N.3)
- The joints, both side and head, must be respectively overlapped by 10 & 15 cm. (Draw. N.3)
- The second layer of membrane will be applied astride and over the first one, always in the same direction, and approx. 1/4 of its length from the previous sheet. (Draw. N.4)
- The bituminous membrane will be applied with a propane gas torch to the substrate. It is necessary to heat the entire surface, except for the side & head laps, making sure that the compound forms a liquid mass in front of the roll to assure that it saturates any superficial porosity.
- The side laps (10 cm) and head laps (15 cm) will be heat welded with an appropriate torch; during this stage the overlaps should be pressed by using a roller (15 kg) from which a bead of compound should flow and therefore avoiding to have to iron the overlaps.
- Apply the vertical membrane sheet having the same characteristics of the waterproofing membrane and dimensions equal to the width of the roll, making sure that it overlaps the horizontal one by at least 10 cm, heating it with a gas torch and squeezing it with a trowel until a bead of compound appears from underneath.
- The height of the verticals must be equivalent or superior to the finished surface by at least 15 cm.



LARIX HP hail proof

Recommendations

- The rolls are to be stored in an upright position, indoors in a dry and ventilated area, away from heat sources. Absolutely avoid the stacking of rolls and pallets for storage or transport to avoid possible deformations which may compromise a perfect installation. It is recommended to store the product at temperatures above 0°C.
- The application surface must be smooth, dry, and clean.
- The application surface must be previously treated with the appropriate bituminous primer.
- **The application surface must not have any depressions to avoid the risk of ponding water, the slope must be at least 1.5% on concrete decks and 3% for steel or wooden ones, this to guarantee a proper run off of rainwater.**
- 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 product must be applied at room temperatures of above + 5°C.
- Application must be suspended during inclement weather (excessive humidity, rain, etc.).
- The pallets supplied are suited only for normal warehouse movement and not for raising heavy loads to height.
- We recommend making correct and regular warehouse rotation.
- For information concerning storage and application of Laribit membranes, please refer to the "Installation manual".

Technical data

Technical Characteristics	Measure Units	Reference Norm	PA	Tolerance
Type of reinforcement			Single strand polyester	
Upper face finish			Mineral *	
Lower face finish			PE film	
Length	m	EN 1848-1	8 -1%	
Width	m	EN 1848-1	1 -1%	
Thickness	mm	EN 1849-1	4 on selvedge	±5%
Cold flexibility	°C	EN 1109	-25	
Flow resistance	°C	EN 1110	100	
Flow resistance after ageing	°C	EN 1296	90	
UV artificial ageing		EN 1297	pass	
Shear resistance L / T	N / 5 cm	EN 12317-1	1100/800	-20%
Tensile strength L / T	N / 5 cm	EN 12311-1	1100/900	-20%
Elongation at break L / T	%	EN 12311-1	40/40	-15
Tearing resistance L / T	N	EN 12310-1	250/250	-30%
Dimensional stability	%	EN 1107-1	-0,3	
Static puncture resistance	kg	EN 12730	25	
Dynamic puncture resistance	mm	EN 12691	1500	
Loss mineral	%	EN 12039	30	
Fire resistance		EN 13501-5	F ROOF	
Fire reaction		EN 13501-1	F	
Watertightness	kPa	EN 1928	60	
Resistance to Hail ⁽¹⁾		EN 13583	rigid support	"V _d " 38 m/s (c.a. 137 km/h)
			soft support	"V _d " 50 m/s (c.a. 180 km/h)

* Mineral self-protected products may undergo color tone variations due to the time and length of storage. Exposure to atmospheric conditions, after application, will tend to uniform the color after a few months. The change in color tone cannot therefore be contested and / or complained of as it is a natural phenomenon that the slate manufacturer himself cannot guarantee. (1) Istituto Giordano S.p.A. institute test in accordance with the UNI EN 13583:2012 regulations (test report no. 334156).

Sizes & packing

	PA 4 mm
Rolls size [m]	8x1
Rolls per pallet	25
Square meters per pallet [m ²]	200

Sizes & packing may vary depending on the type of transportation. The technical data given is based on average values obtained during production. 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.

Laribit®

Matco S.r.l. - Via Quadrelli 69
37055 Ronco all'Adige (VR) Italy

Tel. +39 045 8775559 www.laribit.com
Fax +39 045 8751474 info@laribit.com

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