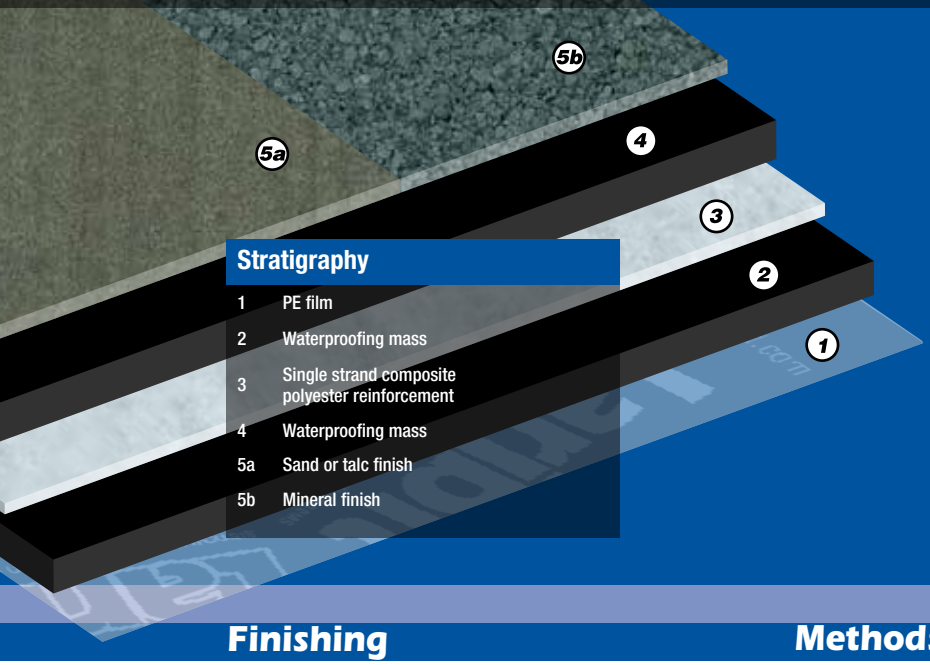
Laribit®
SISTEMI IMPERMEABILIZZANTI
WATERPROOFING SYSTEMS

Ice Agrement ITC n. 565/05

APP waterproofing membrane



Stratigraphy

1	PE film
2	Waterproofing mass
3	Single strand composite polyester reinforcement
4	Waterproofing mass
5a	Sand or talc finish
5b	Mineral finish

Characteristics

ICE is a prefabricated membrane made of bitumen distillate modified with elastomeric and plastomeric polymers reinforced with spunbond non-woven polyester filaments, with excellent mechanical characteristics, dimensional stability and durability.
The waterproofing compound obtained through the complete homogenization of bitumen distillate with polyolefinic polymers added with special additives provides excellent features:

- resistance to U.V. radiation
- resistance to temperature change
- resistance to 03
- resistance to chemical corrosion (acids and salts)
- waterproof seal

Finishing

The upper face of ICE P 4 mm is finished with a special inorganic material with extremely fine release material which is uniformly spread and calibrated in order to prevent the roll from sticking to itself.
ICE PA 4 mm and ICE PA 4,5 kg/m² instead have their upper face protected 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 wide selvedge has been left at the side to improve overlapping of rolls.
The lower face is protected by a burn-off printed polyethylene film that allows you to check anytime the ideal melting point of the waterproofing compound.

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.

Technical data sheet APP

Fields of use

CE

EN13707 Continuous roofs (Certificate n° 0958-CPR-2045/1)

	N° LAYERS			METHOD OF APPLICATION						TYPE OF APPLICATION			TYPE				
	Single Layer	Double Layer	Multilayer	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
ICE P 4 MM	•	•	•	•		•		•		•			•	•	•		
ICE PA 4 MM ON SELVEDGE	•	•	•	•		•		•		•				•			
ICE PA 4.5 KG/M²		•	•	•						•				•			

EN13859-1 Under roof tile

ICE PA 4 MM ON SELVEDGE	•	•	•	•				•		•				•			
ICE PA 4.5 KG/M²	•	•	•	•				•		•				•			

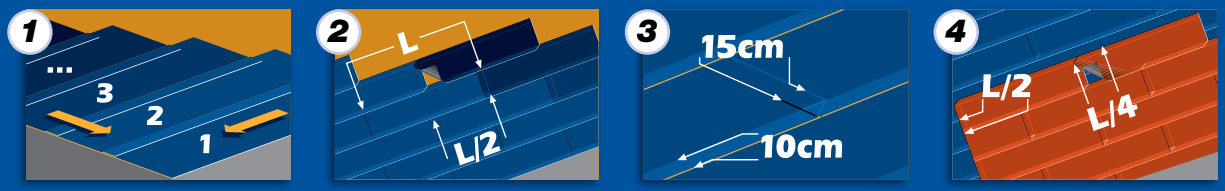
EN13969 Retaining walls (Certificate n° 0958-CPR-2045/1)

ICE P 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.



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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 materials without mineral self-protection or dual reinforcement, used as a top layer (cap sheet), can be painted with an aluminium coating to improve and extend the performance and life expectancy, the material should be allowed to oxidize approx. 3-6 months before being coated. An alternative, depending on the type of construction, it is possible to use heavy protection (floating pavements, stone, 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	P	PA		Tolerance
Type of reinforcement			Single strand polyester			
Upper face finish			Sand or talc	Mineral *		
Lower face finish			PE film			
Watertightness	kPa	EN 1928	60			
Length	m	EN 1848-1	10 -1%	8 -1%	10 -1%	
Width	m	EN 1848-1	1 -1%			
Thickness	mm	EN 1849-1	4	4 on selvedge		±5%
Mass	kg/m²	EN 1849-1			4,5	±10%
Cold flexibility	°C	EN 1109	-20			
Flow resistance	°C	EN 1110	140			
Flow resistance after ageing	°C	EN 1296	140			-10°C
Artificial U.V. ageing		EN 1297	pass			
Shear resistance L / T	N / 5 cm	EN 12317-1	750/550			-20%
Tensile strength L / T	N / 5 cm	EN 12311-1	850/650			-20%
Elongation at break L / T	%	EN 12311-1	40/40			-15
Tearing resistance L / T	N	EN 12310-1	200/200			-30%
Static puncture resistance	kg	EN 12730	20			
Dynamic puncture resistance	mm	EN 12691	1250			
Dimensional stability	%	EN 1107-1	-0,3			
Peel resistance of joints L / T	N	EN 12316-1	50/50			-20 N
Loss mineral	%	EN 12039		30		
Fire resistance		EN 13501-5	F ROOF			
Fire reaction		EN 13501-1	F			
Tensile strength after ageing L / T	N / 5 cm	EN 1296		NPD		-20%
Elongation at break after ageing L / T	%	EN 1296		NPD		-15
Impermeability after artificial ageing	kPa	EN 1296	60			

* 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.

NPD = No Performance Declared in accordance with the EU Construction Products Directive.

Sizes & packing

	P 4 mm	PA 4 mm	PA 4,5 kg/m²
Rolls size [m]	10x1	8x1	10x1
Rolls per pallet	24	23	23
Square meters per pallet [m²]	240	184	230

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.

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Technical data sheet **APP**