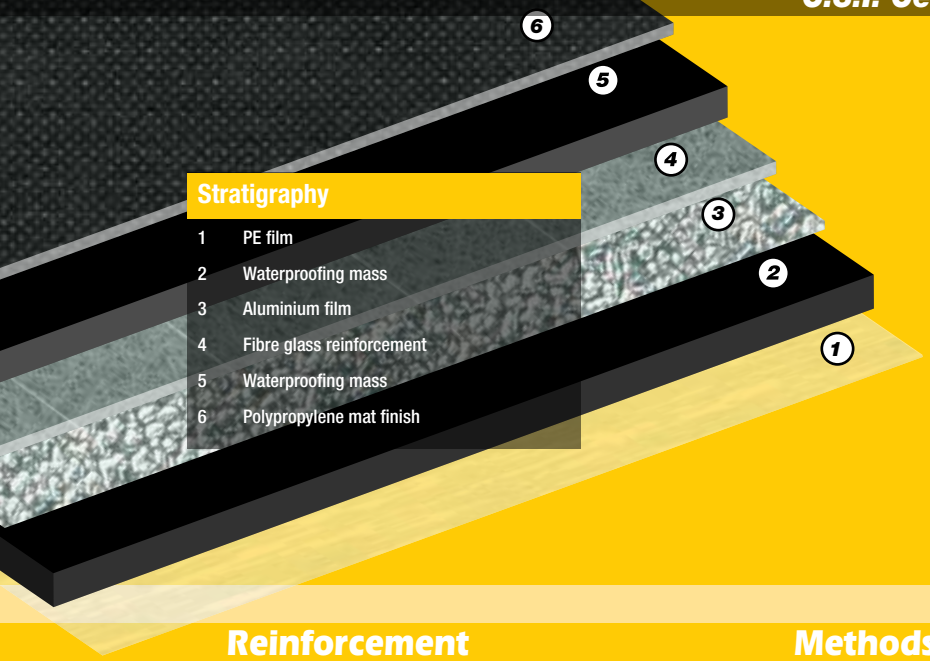
Laribit®
SISTEMI IMPERMEABILIZZANTI
WATERPROOFING SYSTEMS

MT Radon Gas Barrier

Waterproofing membrane for use of Radon gas barrier
C.S.I. Certification - Test report 0051/FPM



Stratigraphy

1 PE film
2 Waterproofing mass
3 Aluminium film
4 Fibre glass reinforcement
5 Waterproofing mass
6 Polypropylene mat finish

Characteristics

MT RADON GAS BARRIER is a pre-fabricated waterproofing membrane for specific use as a total barrier to the passage of Radon gas. The waterproofing mass is made of distilled bitumen and elasto-plastomeric polymers (APP), reinforced with a rot proof fibre glass reinforcement and aluminium film which allows to obtain a barrier to the transmission of Radon gas.
Due to the characteristics, the membranes of the MT RADON GAS BARRIER range are used with success in the waterproofing of both civil and industrial works where an absolute barrier to the transmission of Radon gas is required.

Reinforcement

The product is made with unrottable fibreglass and aluminium foil, and provides good dimensional stability, high mechanical properties, chemical and heat resistance.

Finishing

MT RADON GAS BARRIER lower face is protected by a burn-off polyethylene film that allows you to check anytime the ideal melting point of the waterproofing compound. The particular finish of the upper face in polypropylene mat provides multiple advantages, including:

- Improved aesthetics.
- Increased tear resistance: useful in the mechanical fixing, where it greatly improves the membrane performance when the washer is fixed (less deformation).
- Facilitation of joints: polypropylene is perfectly compatible with the waterproofing mass and indeed increases the adhesion between layers (for example with the FONDPLAST membrane for mechanical protection).

Radon Gas

Radon is a colourless and odourless natural radioactive gas produced during the radioactive decay of radium which, in turn, is created as a result of the radioactive decay of uranium; variable quantities of both elements are present in the earth's crust. The main sources that release Radon into the environment are the soil and various construction materials – like volcanic tuff – and, in some cases, water. Radon comes out of the ground, construction materials and water and disperses in the atmosphere, but accumulates in closed environments. Radon is an inhalation hazard and is considered to be the second cause of lung cancer after cigarette smoke. MT RADON GAS BARRIER is designed especially to protect buildings against Radon gas.

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
SPECIAL APPLICATIONS membranes

Fields of use

CE

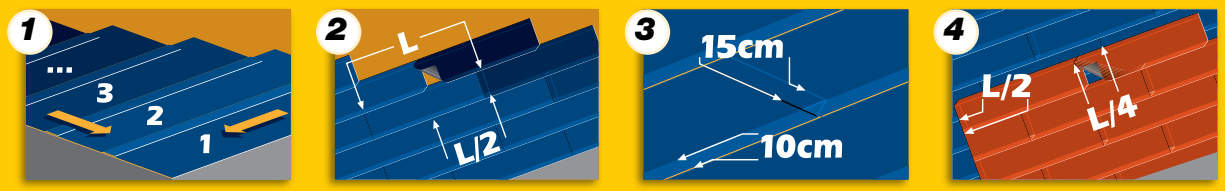
EN13969 Retaining walls (Certificate n° 0958-CPR-2045/1)

	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
MT RADON GAS BARRIER 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 to the thickness of the insulation panel plus 5 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 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 sheet
SPECIAL APPLICATIONS membranes

Technical data

Technical Characteristics	Measure Units	Reference Norm		Tolerance
Type of reinforcement			Fibre glass + Aluminium	
Upper face finish			Polypropylene mat	
Lower face finish			PE film	
Watertightness	kPa	EN 1928	60	
Length	m	EN 1848-1	10 -1%	
Width	m	EN 1848-1	1 -1%	
Thickness	mm	EN 1849-1	4	±5%
Cold flexibility	°C	EN 1109	-10	
Permeability to Radon	$\frac{cm^3}{(m^2 \times 24h \times atm)}$	Indirect method CSI	< 1 highly impermeable	
Shear resistance L / T	N / 5 cm	EN 12317-1	350/250	-20%
Tensile strength L / T	N / 5 cm	EN 12311-1	450/350	-20%
Elongation at break L / T	%	EN 12311-1	2/2	-2
Tearing resistance L / T	N	EN 12310-1	100/100	-30%
Dynamic puncture resistance	mm	EN 12691	500	
Water vapour permeability	μ	EN 1931	1500000	
Fire resistance		EN 13501-5	F ROOF	
Fire reaction		EN 13501-1	F	

Sizes & packing

	4 mm
Rolls size [m]	10x1
Rolls per pallet	24
Square meters per pallet [m²]	240

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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