

## DIFFUSER ALUMINIUM

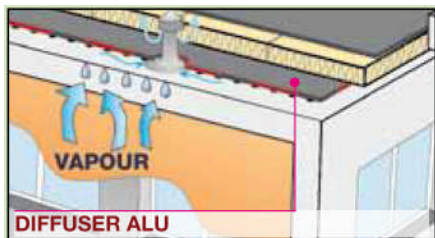
**(REINFORCED ELASTOPLASTOMERIC POLYMER-BITUMEN WATERPROOFING MEMBRANE BITUMEN KNOBS ON THE UNDERSIDE, MADE WITH DISTILLED BITUMEN, PLASTOMERS AND ELASTOMERS)**

**HOW TO KEEP THE INSULATION OF A ROOF DRY AND DRAIN THE CONDENSATE FROM UNDER THE VAPOUR BARRIER?**

**Description** The vapour barriers used to insulate very damp substrates such as swimming pools, laundrettes, dye works and industries with productive cycles that produce a great amount of vapour are normally reinforced with aluminium foil which is a highly effective vapour barrier. However, condensate can form in the space between the vapour barrier and the substrate and be trapped in the layer build up

DIFFUSER ALU POLYESTER is the vapour barrier membrane to solve the problems of draining the humidity that condenses behind the vapour barrier.

The lower side of DIFFUSER ALU POLYESTER has a series of very thick bitumen knobs, which cover approximately 35% of the surface (1.472 embossments/m<sup>2</sup>) with the exception of a 70 mm smooth overlapping side strip. The knobs protrude from the membrane 3.5 mm and once they have been heated with the torch, they become very thick adhesive bitumen knobs that form a strong bond with the support. In this way an interspace is left between the membrane and the laying surface with a series of voluminous and very efficient water vapour diffusion channels; it can be connected to aerators, so that the condensate drains easily along the slope without meeting any obstacles, and preventing dangerous water stagnation. The resulting adhesive surface is approximately 40% of the total surface area which solves any problems with strong winds and what is more, the high heat-resistant qualities of the membrane make it possible to lay it without fixing it mechanically on surfaces with slopes of up to 40%. DIFFUSER ALU POLYESTER is reinforced with non-woven composite polyester fabric stabilized with fiberglass combined with a 12 micron aluminum foil, which forms an absolute barrier against vapour migration.



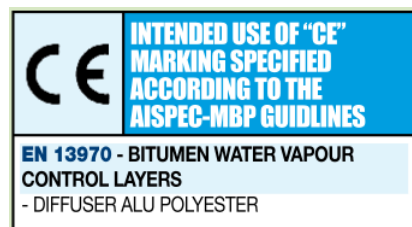
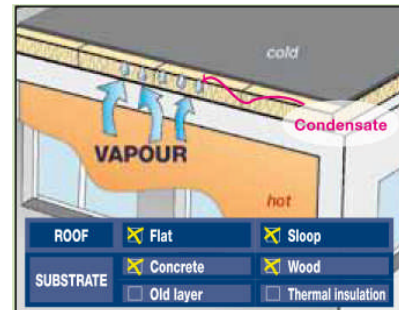
Both are soaked and covered by a waterproofing mass of distilled bitumen selected for industrial use; a high content of elastomeric and plastomeric polymers is added to it, in order to obtain a phase inversion alloy whose continuous phase is formed by polymers in which the bitumen is dispersed. The performance of the bitumen is therefore incremented along with the durability and the resistance to high temperatures while the already optimum adhesive and waterproofing qualities of the bitumen remain unchanged. Both sides of the membrane are lined with Flamina, a film that melts when torched guaranteeing rapid laying and reliable adhesion.

**Applications field** DIFFUSER ALU POLYESTER can be used as a draining vapour barrier on roofs of scarcely ventilated rooms with very high relative humidity, where the risk of water vapour condensing behind the vapour barrier is high. Furthermore, DIFFUSER ALU POLYESTER also absorbs the differential movements of the laying surface, protecting the build-up above from any mechanical stress which could damage it.

**Method of Use** DIFFUSER ALU POLYESTER should be bonded to the substrate by torching the rusticated indentations on the underside and also along with the longitudinal overlaps that should be torched together. Crosswise the membranes are abutted and not overlapped along the joints where a strip of smooth membrane (DEFEND - 3 mm, NOVA/V - 3 mm), at least 14 cm wide should be bonded over the traversal joints.

### Advantages

- One product that can be used as a vapour barrier and vapour draining layer.
- The high adhesive surface makes it resistant to wind and the product can be installed without using nails even on steeply sloping surfaces.



Method of use	Torch Application	Hot Air Application
	✓	✓

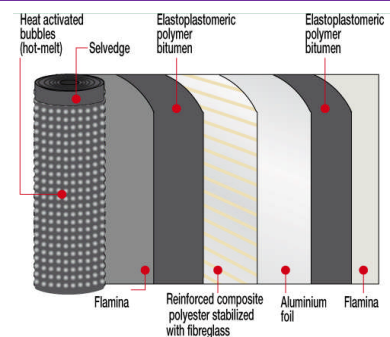
Loading Table	Product specifications			Loading in 20' FCL	
	Thickness	m <sup>2</sup> /roll	Rolls/pallet	Pallets	M <sup>2</sup>
Diffuser Alu Polyester	4,0 kg/m <sup>2</sup>	7,5	25	20	3750

**Finishing**



FLAMINA. With Bitumen knobs.

TECHNICAL SPECIFICATIONS			
	Standard	T	<b>DIFFUSER ALUMINIUM</b>
Reinforcement			non woven composite polyester and aluminium foil (thickness 12 μ)
Mass per Unit Area	EN 1849-1	±12%	4,0 Kg/m <sup>2</sup>
Roll size	EN 1848-1		1x7,5m
Watertightness	EN 1928 – B	≥	60 kPa
Maximum tensile force L/T	EN 12311-1	-20%	250/120 N/50mm
Elongation L/T	EN 12311-1	15%	12%/20%
Resistance to Impact	EN 12691-A		NPD
Resistance to tearing (nail shank) L/T	EN 12310-1	-30%	100/100 N
Flexibility to low temperature	EN 1109	≤	-10°C
Water Vapor Transmission After Ageing	EN 1931 EN1296-1931	-20%	μ=1500000 NPD
Reaction to Fire - Euroclass	EN 13501-1		E
External fire performance	EN 13501-5		F roof
Thermal Specifications			
Thermal Conductivity			0,2W/mK
Heat Capacity			5,20KJ/K



CATEGORY	CHARACTERISTICS			ENVIRONMENTAL						METHOD OF USE		
 SPECIAL ELASTOPLASTOMERIC FOR SPECIFIC USES	 WATERPROOF	 VAPOUR BARRIER	 REACTION TO FIRE	 ECO GREEN	 ASBESTOS FREE	 TAR FREE	 CHLORINE FREE	 RECYCLABLE	 NON DANGEROUS WASTE	 EXHAUSTED OIL FREE	 TORCH APPLICATION	 HOT AIR APPLICATION