

REINFORCED PLASTOMERIC DISTILLED POLYMER-BITUMEN WATERPROOFING MEMBRANES MADE OF DISTILLED BITUMEN AND PLASTOMERS

## GRANTS *LEED* CREDITS

CATEGORY	CHARACT	ENVIRONRMENTAL							METHOD OF USE			
P	•	Reazione al fuoco		ASBESTOS FREE	TAR	CHLORINE	(3)					
PLASTOMERIC	WATERPROOF	REACTION TO FIRE	ECO GREEN	ASBESTOS FREE	TAR FREE	CHLORINE FREE	RECYCLABLE	NON DANGEROUS WASTE	EXHAUSTED OIL FREE	TORCH APPLICATION	HOT AIR APPLICATION	NAILING

# **DESCRIPTION**

The ARGO membranes are made up of distilled bitumen, selected for industrial use, with elastomeric and plastomeric polymers added to obtain a phase inversion compound whose continuous phase is formed by polymers in which the bitumen is dispersed, where the characteristics are determined by the polymeric matrix and not by the bitumen even if this is the most consistent ingredient.

The performance of the bitumen is therefore increased along with the durability and the resistance to high and low temperatures while the already optimum adhesive and waterproofing qualities of the bitumen remain unchanged. ARGO is produced in various weights and reinforced with fibreglass mat and in stabilized "non woven" polyester fabric.

ARGO POLYESTER and MINERAL ARGO POLYESTER are reinforced with a rot-proof "non woven" polyester fabric composite, stabilized with fibreglass mat which is very strong and elastic with optimal dimensional stability in hot conditions which reduces the problems of the straightness and the retraction of head lap joints as it is 2 to 3 times more stable than normal reinforcements in "non woven" polyester fabric.

ARGO/V is reinforced with rot-proof fibreglass mat which is strengthened longitudinally and has high dimensional stability properties.

The ARGO POLYESTER and ARGO/V membranes, have the upper face of the membrane coated with a uniformly distributed, fine serigraphed talc, a patented treatment which makes it possible to quickly unroll the rolls and install the membranes with the reliable and fast welding of the joints.

The MINERAL versions have the upper face self-protected with hot bonded and pressed slate granules, with the exception of an overlapping side strip, protected by a strip of Flamina film which is torched to weld the joints.

The underside of the membranes is coated with Flamina, a plastic film that melts when torched and which is embossed both to obtain the pretension and therefore the optimal retraction of the film and also to offer the torch a greater surface area for faster and more reliable installation. When the membrane is dry laid or spot bonded, the embossing diffuses the vapour.

## APPLICATION FIELDS

The long lasting strength, elasticity and stability at high and low temperatures make ARGO POLYESTER and MINERAL ARGO POLY-ESTER membranes ideal for use in non cold climates, as a single or multi-layer waterproofing system either for new building work or for refurbishment:

- · On all sloping surfaces: on flat, vertical and curved surfaces.
- · On different types of substrates: site-cast or prefabricated concrete substrates, on timber roofing, on the most common thermal insulation used in the building trade.



MARKING SPECIFIED ACCORDING TO THE AISPEC-MBP GUIDLINES

### **EN 13707 - REINFORCED BITUMEN SHEETS FOR ROOF** WATERPROOFING

- · Under layer or intermediate layer in multi-layer systems without permanent heavy surface protection
- ARGO POLYESTER
- ARGO/V

## **EN 13969 - BITUMEN DAMP PROOF SHEET** INCLUDING BITUMEN BASEMENT TANKING SHEETS

- Membrane per fondazioni
- ARGO POLYESTER

### **EN 13859-1 - UNDERLAY FOR DISCONTINOUS ROOFING**

- MINERAL ARGO POLYESTER
- For the various uses: terraces, flat and sloping roofs, dielectric coatings and walls in contact with the ground.

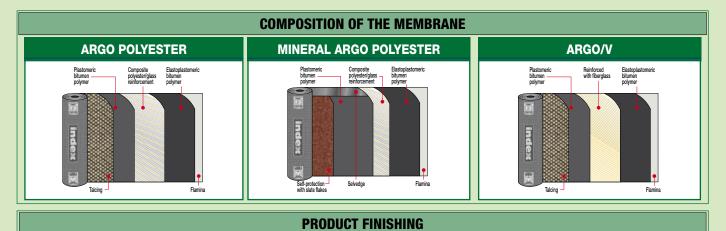
The high dimensional stability of ARGO/V makes the membranes suitable for combining with elastomeric, elastoplastomeric and plastomeric membranes reinforced with "non woven" polyester fabric, to form double-layer waterproofing systems.





TECHNICAL CHARACTERISTICS											
	Standard	т	ARC POLYE		NERAL ARGO POLYESTER	0	ARGO/V				
Reinforcement			"Non-woven" cor stabilized wi		woven" composite tabilized with fibre		Fibreglass				
Mass per unit area	EN 1849-1	±10%	3.0 kg/m <sup>2</sup>	4.0 kg/m <sup>2</sup>	-	-	-	2.0 kg/m <sup>2</sup>	3.0 kg/m <sup>2</sup>	4.0 kg/m <sup>2</sup>	
Mass per unit area MINERAL	EN 1849-1	±15%	-	-	3.5 kg/m <sup>2</sup>	4.0 kg/m <sup>2</sup>	4.5 kg/m <sup>2</sup>	-	-	-	
Roll size	EN 1848-1	2	1×10 m	1×10 m	1×10 m	1×10 m	1×10 m	1×20 m	1×10 m	1×10 m	
Watertightness • after ageing	EN 1928 - B EN 1926-1928	≥ ≥	60 I 60 I		60 kPa 60 kPa		60 kPa 60 kPa				
Shear resistance L/T	EN 12317-1	-20%	350/250		-		300/250 N/50mm				
Maximum tensile force L/T • after ageing	EN 12311-1	-20%	400/300	4	400/300 N/50 mm NPD		300/200 N/50 mm -				
Elongation L/T • after ageing	EN 12311-1	-15% V.A.	35/4		35/40% NPD		2/2% -				
Resistance to impact	EN 12691 – A		700		-		-				
Resistance to static loading	EN 12730 - A		10		-		-				
Resistance to tearing (nail shank) L/T	EN 12310-1	-30%	140/1		140/140 N		70/70 N				
Flexibility to low temperature	EN 1109	≤	0°		0° C		0° C				
Flow resistance at high temperature	EN 1110	≥	110		-		110° C				
Res. to water penetration • after ageing	EN 1928 EN 1296-1928		-		W1 W1		<u>-</u> -				
Reaction to fire Euroclass	EN 13501-1		E		E		E				
External fire performance	EN 13501-5		Fr		F roof		F roof				
Thermal specifications											
Thermal conductivity			0.2 W/mK	0.2 W/mK	0.2 W/mK	0.2 W/mK	0.2 W/mK	0.2 W/mK	0.2 W/mK	0.2 W/mK	
Heat capacity			3.90 KJ/K	5.20 KJ/K	4.20 KJ/K	4.80 KJ/K	5.40 KJ/K	2.60 KJ/K	3.90 KJ/K	5.20 KJ/K	

Compliant with EN 13707 in terms of the resistance factor to steam penetration for reinforced polymer-bitumen membranes, the value of  $\mu = 20\,000$  may be considered, unless declared otherwise.





EMBOSSING FLAMINA. The embossing on the lower surfaces of the membranes finished with Flamina film makes it possible to lay the product precisely and quickly; forming a smooth surface when melted with the torch. It indicates the correct melting temperature and lets the film retract faster. The embossing also enables optimal vapour diffusion; in spot bonded and loose laid installation, in the points where it remains intact, preventing blisters and swelling.



TALCING. The talcing of the top face is carried out with a technique which evenly spreads the very thin talc over the top surface with a special pattern, preventing accumulation or zones without talc. This new system allow a quick unroll and gives the surface a pleasant aspect, which enable to torch it faster if compared to the other coarser mineral finishes.



**MINERAL PROTECTION.** On the visible face of the membrane, a protective coating made up of slate granules of various colours is hot bonded. This mineral shield protects the membrane from ageing caused by UV rays.

• FOR ANY FURTHER INFORMATION OR ADVICE ON PARTICULAR APPLICATIONS, CONTACT OUR TECHNICAL OFFICE • IN ORDER TO CORRECTLY USE OUR PRODUCTS, REFER TO INDEX TECHNICAL SPECIFICATIONS •



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