

# SIRIO POLYESTER MINERAL SIRIO POLYESTER

PLASTOMERIC DISTILLED POLYMER-BITUMEN WATERPROOFING  
MEMBRANES BASED ON DISTILLED BITUMEN AND PLASTOMERS

GRANTS *LEED* CREDITS

CATEGORY	CHARACTERISTICS			ENVIRONMENTAL						METHOD OF USE		
												
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 **SIRIO** 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.

**SIRIO** is produced in various weights and reinforced with fibreglass mat and in stabilized "non woven" polyester fabric.

**SIRIO POLYESTER** and **MINERAL SIRIO 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 banana effect and the retraction of head lap joints as it is 2 to 3 times more stable than normal reinforcements in "non woven" polyester fabric.

The **SIRIO POLYESTER** 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 mem-

branes 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 pre-tension 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 **SIRIO POLYESTER** and **MINERAL SIRIO POLYESTER** membranes ideal for use in non particularly cold climates, as a single or multi-layer waterproofing systems for new building work or for refurbishment:

- **On all sloped surfaces:** on flat, sloped 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.
- **For the most varied uses:** terraces, flat and sloping roofs, dielectric coatings and walls in contact with the ground.

CE

**INTENDED USE OF "CE" 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**

- SIRIO POLYESTER

• **Upper layer in multi-layer systems without permanent heavy surface protection**

- MINERAL SIRIO POLYESTER - 4.0 - 4.5 kg/m<sup>2</sup>

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

• **Membranes for foundations**

- SIRIO POLYESTER

### EN 13859-1 - UNDERLAY FOR DISCONTINUOUS ROOFING

• **Undertile**

- MINERAL SIRIO POLYESTER

# TECHNICAL CHARACTERISTICS

	Standard	T	SIRIO POLYESTER		MINERAL SIRIO POLYESTER		
Reinforcement			"Non-woven" composite polyester stabilized with fibreglass		"Non-woven" composite polyester stabilized with fibreglass		
Weight	EN 1849-1	±10%	3 kg/m <sup>2</sup>	4 kg/m <sup>2</sup>	-	-	-
Weight 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	≥	1x10 m	1x10 m	1x10 m	1x10 m	1x10 m
Watertightness • after ageing	EN 1928 - B EN 1926-1928	≥	60 kPa 60 kPa		60 kPa -		
Shear resistance L/T	EN 12317-1	-20%	350/250 N/50 mm		-		
Maximum tensile force L/T • after ageing	EN 12311-1	-20%	400/300 N/50 mm -		400/300 N/50 mm NPD		
Elongation • after ageing	EN 12311-1	-15% V.A.	35/40% -		35/40% NPD		
Resistance to impact	EN 12691 - A		700 mm		-		
Resistance to static loading	EN 12730 - A		10 kg		-		
Resistance to tearing (nail shank) L/T	EN 12310-1	-30%	140/140 N		140/140 N		
Flexibility to low temperature	EN 1109	≤	-5°C		-5°C		
Flow resist. at high temp. • after ageing	EN 1110 EN 1296-1110	≥ -10°C	110°C -		110°C 100°C		
Res. to water penetration • after ageing	EN 1928 EN 1296-1928		-		W1 W1		
Reaction to fire Euroclass	EN 13501-1		E		E		
External fire performance	EN 13501-5		F roof		F roof		

## Thermal specifications

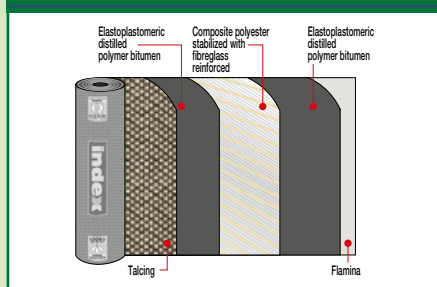
Thermal conductivity			0.2 W/mK	0.2 W/mK	0.2 W/mK	0.2 W/mK	0.2 W/mK
Heat capacity			3.90 KJ/K	5.20 KJ/K	4.20 KJ/K	4.80 KJ/K	5.40 KJ/K

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.

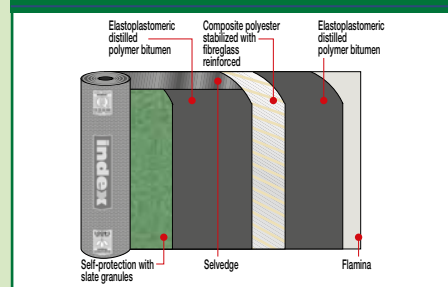
the numerous possible uses and the possible interference of conditions or elements beyond our control, we assume no responsibility regarding the results which are obtained. The purchasers, of their own accord and under their own responsibility, must establish the suitability of the product for the envisaged use.

## COMPOSITION OF THE MEMBRANE

### SIRIO POLYESTER



### MINERAL SIRIO POLYESTER



## PRODUCT FINISHING



**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.



**TALC SURFACING.** 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 allows a quick unroll and gives the surface a pleasant aspect, which enables to torch it faster if compared to the other coarser mineral finishes.



**SELF-PROTECTION WITH SLATE GRANULES.** 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.

The figures shown are average indicative figures relevant to current production and may be changed or updated by INDEX at any time without previous warning. The advice and technical information provided, is what results from our best knowledge regarding the properties and the use of the product. Considering

• 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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