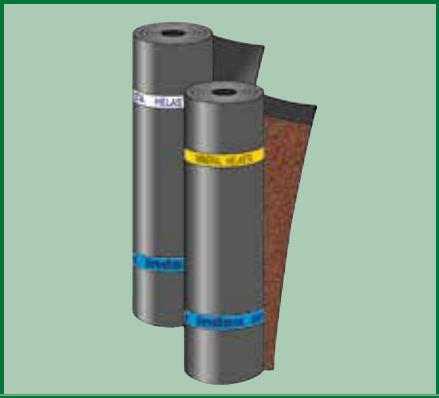


HELASTA POLYESTER
MINERAL HELASTA POLYESTER

REINFORCED DISTILLED POLYMER-BITUMEN ELASTOMERIC WATERPROOFING MEMBRANES, CONTAINING RADIAL STYRENE-BUTADIENE THERMOPLASTIC RUBBER

GRANTS *LEED* CREDITS

CATEGORY	CHARACTERISTICS		ENVIRONRMENTAL							METHOD OF USE		
HE		Reazione al fuoco		ASBESTOS FREE	TAR FREE	CHLORINE FREE						
ELASTOMERIC	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 prefabricated **HELASTA** membrane, produced with various reinforcements combines ease of application, thermal fusibility and the excellent adhesion of the bituminous products, with the flexibility at low temperatures, mechanical strength and elasticity of synthetic membranes.

HELASTA is a membrane based on a "phase inversion" compound of distilled bitumen for industrial use with a high content of SBS rubber, in which the elastomer constitutes the continuous polymeric matrix and the bitumen the dispersed phase. The thermoplastic rubber which is manufactured from a block copolymer of radial styrene-butadiene-styrene (SBS), gives the material an ultimate elongation of 2,000%, an elastic recovery of 300%, a cold flexibility of –25°C and a resistance to temperatures higher than 100°C, characteristics which are considerably superior to those which can be achieved with ordinary bitumen.

Furthermore, the compound has excellent qualities of adhesion and of compatibility with other oxidised and modified bitumen and it guarantees a long lasting and strong joint with a resistance to peeling which increases in time, from 2 to 3 times higher than normal membranes based on polymer modified bitumen.

HELASTA POLYESTER and **MINERAL HELASTA POLYESTER** are reinforced with a high grammage, "non-woven" single strand Spunbond polyester fabric which is rot-proof, isotropic, thermally fixed, with high mechanical resistance and elasticity.

HELASTA POLYESTER is produced in various thickness values. It is lined on both faces with Flamina, a highly retracting hot-melt film. The film ensures fast and safe laying. **MINERAL HELASTA POLYESTER** is produced with the lower side coated with sand, have the upper face self-protected with hot bonded and pressed ceramic mineral granules, with the exception of an overlapping side strip, protected by a strip of sand which is torched to weld the joints.

APPLICATION FIELDS

The excellent resistance to fatigue of the **HELASTA** membranes, due to the exceptionally high elasticity even at low temperatures, make them suitable for use in the most demanding waterproofing installations: fractional laying surfaces or ones which are subject to cracking and vibrations, even in particularly cold climates are particularly suitable for use as a waterproofing membrane of construction joints to be joined with a torch to waterproof coats in both oxidised and polymer-bitumen.

The long lasting characteristics of mechanical strength and the high resistance to low temperatures makes it possible to use **HELASTA POLYESTER** and **MINERAL HELASTA POLYESTER** membranes as single or multi-layer waterproofing systems in the building industry and civil engineering, both for new constructions and for refurbishing of various typologies:

- **On all sloped surfaces:** on flat, sloped and curved surfaces
- **On different types of laying surfaces:** cement laying floors , site-cast or prefabricated, on metal or wooden roofing, on the most widely used thermal insulation systems for the building industry.
- **For the most varied uses:** terraces, flat and sloping roofs, stretched flexible structures, foundations (even earthquake-proof), car park roofings with under cope in reinforced concrete, waterworks and ecological works, tunnels, underground passages, undergrounds and subways.

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**
  - HELASTA POLYESTER
- **Upper layer in multi-layer systems without permanent heavy surface protection**
  - MINERAL HELASTA POLYESTER
- **Exposed single-layer**
  - MINERAL HELASTA POLYESTER
- **Single-layer under heavy protection**
  - HELASTA POLYESTER
- **Under heavy protection in multi-layer systems**
  - HELASTA POLYESTER

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

- **Membranes for foundations**
  - HELASTA POLYESTER

CERTIFICATION

Documento di Valutazione Tecnica all'impiego DVT-0008

ITC

Technical Approved

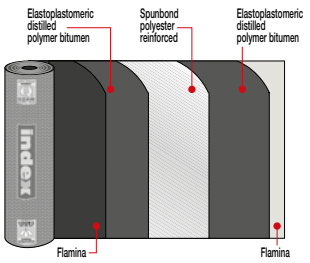
TECHNICAL CHARACTERISTICS

	Standard	T	HELASTA POLYESTER		MINERAL HELASTA POLYESTER
Reinforcement			"Non-woven" Spunbond polyester		"Non-woven" Spunbond polyester
Thickness	EN 1849-1	±0,2	4 mm	5 mm	4 mm
Mass per unit area MINERAL	EN 1849-1	±15%	–	–	–
Roll size	EN 1848-1	≥	1×10 m	1×10 m	1×10 m
Watertightness	EN 1928 – B	≥	60 kPa		60 kPa
Peel resistance L/T	EN 12316-1	-20 N	–		200 N/50 mm
Shear resistance L/T	EN 12317-1	-20%	800/600 N/50 mm		800/600 N/50 mm
Maximum tensile force L/T	EN 12311-1	-20%	900/700 N/50 mm		900/700 N/50 mm
Elongation L/T	EN 12311-1	-15% V.A.	50/50%		50/50%
Resistance to impact	EN 12691 – A		1250 mm		1250 mm
Resistance to static loading	EN 12730 - A		20 kg		20 kg
Resistance to tearing (nail shank) L/T	EN 12310-1	-30%	150/150 N		150/150 N
Dimensional stability L/T	EN 1107-1	≤	–0.50/+0.50%		–0.50/+0.50%
Flexibility to low temp. • after ageing	EN 1109 EN 1296-1109	≤ +15°C	–25°C –25°C		–25°C –25°C
Flow resist. at high temp. • after ageing	EN 1110 EN 1296-1110	≥ -10°C	100°C 90°C		100°C 90°C
Reaction to fire Euroclass	EN 13501-1		E		E
External fire performance	EN 13501-5		F roof		F roof

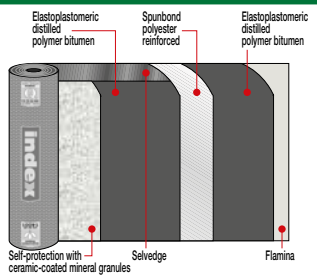
Compliant with EN 13707 in terms of the resistance factor to steam penetration for reinforced polymer-bitumen membranes, the value of μ = 20 000 may be considered, unless declared otherwise.

COMPOSITION OF THE MEMBRANE

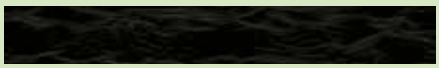
HELASTA POLYESTER



MINERAL HELASTA POLYESTER



PRODUCT FINISHING



"FLAMINA" PE FOIL. Plastic protection film helping prevent coils from sticking to the roll. As it withdraws under the action of the flame right during its installation, it signals the best melting point in order to correctly glue the membrane to the brackets and rises. When not heated, it can be used as a sliding layer.

CERAMIC-COATED MINERAL GRANULES. On the visible face of the membrane, a protective coating made up of ceramic-coated 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 •

index
Construction Systems and Products
Via G. Rossini, 22 - 37060 Castel D'Azzano (VR) - Italy - C.P.67
T. +39 045 8546201 - F. +39 045 518390

Internet: www.index-spa.com
Informazioni Tecniche Commerciali
tecom@indexspa.it
Amministrazione e Segreteria
index@indexspa.it
Index Export Dept.
index.export@indexspa.it

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A.A.