



FLEXTER FLEX TESTUDO SPUNBOND POLIESTERE MINERAL FLEXTER FLEX TESTUDO SPUNBOND POLIESTERE

REINFORCED ELASTOPLASTOMERIC ECMB POLYMER-BITUMEN
WATERPROOFING MEMBRANE BASED ON DISTILLED BITUMEN AND
POLYOLEFIN COPOLYMERS

CATEGORY	CHARACTERISTICS			ENVIRONMENTAL						METHOD OF USE				
ELASTOPLASTOMERIC	WATERPROOFING	REACTION TO FIRE	ECO GREEN	ASBESTOS FREE	TAR FREE	CHLORINE FREE	RECYCLABLE	NON DANGEROUS WASTE	EXHAUSTED OIL FREE	TORCH APPLICATION	HOT AIR APPLICATION	NAILING	COLD ADHESIVE BONDING	APPLICATION WITH MOLTEN BLOWN BITUMEN

* For waterproofing membranes with **TEXFLAMINA** underface finish only

PROBLEM

The -APP bitumen membranes are fine for hot and temperate climates while -SBS bitumen membranes should be used in cold climates.

SOLUTION

FLEXTER FLEX is the Index membrane, certificated with ITC Agreement (former ICITE), that combines the qualities of the -SBS bitumen membranes with those of the -APP bitumen membranes, all in one product. The membrane offers cold flexibility at -25°C just like the best membranes in -SBS bitumen and just like these, passes the fatigue strength test at -20°C both before and after thermal ageing. Just like the best -APP bitumen membranes, **FLEXTER FLEX** does not melt at 140°C, but, being superior to both types, the cold flexibility of **FLEXTER FLEX** does not deteriorate with the ageing test. **FLEXTER FLEX** is the ECMB polymer-bitumen membrane that annuls and exceeds the differences between membranes in -APP bitumen and membranes in -SBS bitumen.

DESCRIPTION

FLEXTER FLEX TESTUDO is a prefabricated waterproofing membrane based on ECMB, a "phase inversion" compound containing controlled molecular weight metal-locene elastomeric co-polymers and bitumen, where the elastomers form the continuous polymeric matrix and the bitumen the dispersed phase. ECMB is an elastoplastomeric compound with a high polymer content. It is flexible at low temperatures (-25°C) like SBS modified bitumen and it has a heat-resistance (140°C) which is equal or higher to bitumen modified with APP. Unlike the latter however, it remains flexible and heat resistant in time, it does not wrinkle or crease when exposed to light like SBS bitumen and does not become brittle like standard APP bitumen. The durability of ECMB easily exceeds the limits of UEATc directives for SBS and APP membranes. The high adhesion of the compound guarantees the

bonding to the substrate and on the overlaps which have a resistance to peeling, both for the new and aged product, which is higher than the provisions of the UEATc directives of March and April 1991 concerning single layer membranes for mechanical fixing under the overlaps. The membrane is reinforced with an elastic, resistant, rot proof, high weight, stabilized, single strand spunbond polyester fabric. Furthermore, it guarantees a resistance to tearing higher than the provisions of the above-mentioned UEATc directives concerning membranes suitable for mechanical fixing. The top face of the **FLEXTER FLEX** membrane is 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. **MINERAL FLEXTER FLEX** has the top 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 both 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 optimal long-lasting stability at both high and low temperatures makes these membranes suitable for use in cold and tropical climates. The excellent adhesion to the surface to be covered and the optimal strength of the joints makes it possible to torch bond or mechanically fix the joints. The long lasting strength and elasticity make **FLEXTER FLEX** ideal for use as a single or double layer waterproofing membrane for new building work or for various types of refurbishment both in the building trade and Civil Engineering:

- On all sloping surfaces: on flat, vertical and curved surfaces;
- On different types of substrates: site-cast or prefabri-

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
 - FLEXTER FLEX TESTUDO SP. POL. 4 mm
- Upper layer in multi-layer systems without permanent heavy surface protection
 - FLEXTER FLEX TESTUDO SP. POL. 4 mm
 - MINERAL FLEXTER FLEX TEST. SP. POL. 4 mm
- Single-layer without permanent heavy surface protection
 - FLEXTER FLEX TESTUDO SP. POL. 4 mm
 - MINERAL FLEXTER FLEX TEST. SP. POL. 4 mm
- Single-layer under heavy protection
 - FLEXTER FLEX TESTUDO SP. POL. 4 mm
- Under heavy protection in multi-layer systems
 - FLEXTER FLEX TESTUDO SP. POL. 4 mm

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

- Membranes for foundations
 - FLEXTER FLEX TESTUDO SP. POL. 4 mm

cated concrete substrates, on metal or timber roofing, on the most widely used thermal insulation used in the building trade;

- For the most varied uses: terraces, flat and sloping roofs, under tile, foundations (also earthquake proof), car park roofs, water works, ecological works, tunnels, subways, bridges and tarmac, dielectric and acid-proof coatings.

CERTIFICATIONS

AGREEMENT I.T.C. n. 551/00

Bureau Veritas

TECHNICAL CHARACTERISTICS

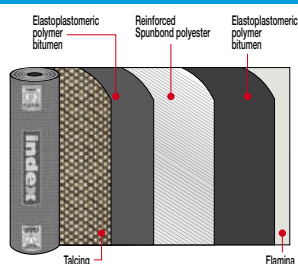
	T	FLEXTER FLEX TESTUDO POLYESTER	MINERAL FLEXTER FLEX TESTUDO POLYESTER
Thickness (EN 1949-1)	±0,2	4 mm	4 mm
Roll size (EN 1848-1)	≥	1x10 m	1x10 m
Reinforcement		"Non-woven" Spunbond polyester fabric stabilized with fibreglass	"Non-woven" Spunbond polyester fabric stabilized with fibreglass
Watertightness (EN 1928 - B method)	≥	60 kPa	60 kPa
• after ageing (EN 1926-1928)	≥	60 kPa	60 kPa
Shear resistance (EN12317-1)	-20%	800/600 N/50 mm	800/600 N/50 mm
Maximum tensile force Long./Trasv. (EN 12311-1)	-20%	850/700 N/50 mm	850/700 N/50 mm
Elongation (EN 12311-1)	-15 V.A.	50/50%	50/50%
Resistance to impact (EN 12691 - A method)		1.250 mm	1.250 mm
Resistance to static loading (EN 12730)		20 kg	20 kg
Resistance to tearing (nail shank) (EN 12310-1)	-30%	200/200 N	200/200 N
Dimension stability (EN 1107-1)	≤	-0,3%/0,3%	-0,3%/0,3%
Flexibility to low temp. (EN 1109)	≤	-25°C	-25°C
• after ageing at elevated temperature (EN 1296-1109)	+15°C	-25°C	-25°C
Flow resistance at elevated temperature (EN 1110)	≥	140°C	140°C
• after ageing at elevated temperature (EN 1296-1109)	-10°C	140°C	140°C
UV ageing (EN 1297)		Supera la prova	-
Reaction to fire class (EN 13501-1)		Euroclasse E	Euroclasse E
External fire performance (EN 13501-5)		F _{roof}	F _{roof}

In compliance with EN 13707 as the water vapour transmission factor, for reinforced polymer bitumen membranes, the value of 20.000 μ may be assumed.

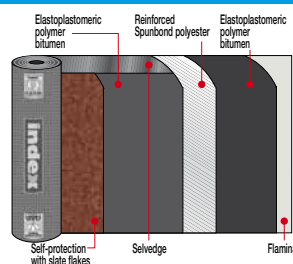
ing the numerous possible uses and the possible interference of conditions or elements beyond our control, we assume no responsibility regarding the results which are obtained. The purchasers, of their own accord and under their own responsibility, must establish the suitability of the product for the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

MEMBRANE COMPOSITION

FLEXTER FLEX TESTUDO SPUNBOND POLYESTER



MINERAL FLEXTER FLEX TESTUDO SPUNBOND POLYESTER



PRODUCT FINISH



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 talc over the top surface with a special pattern, preventing accumulation and zones without talc. This new system makes it possible to quickly unroll the rolls and gives the surface an appearance which is pleasing to the eye.



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.

The figures shown are average indicative figures relevant to current production and may be changed or updated by INDEX S.p.A. 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. Consider

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