



# TPY

## APP Modified Bitumen Membrane

### Description:

**TPY** is a bitumen-based waterproofing membrane with excellent performance, and modified with atactic poly-propylene (APP). It works best in TROPICAL environments.

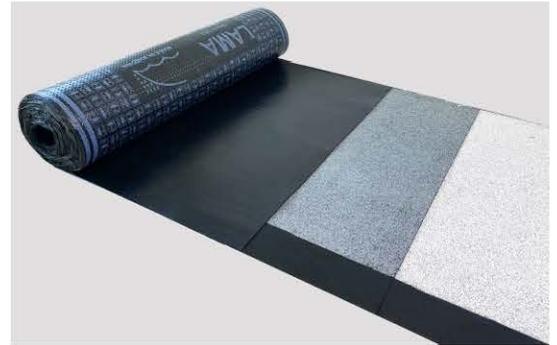
**TPY's** reinforcement, 200 g/m<sup>2</sup> non-woven polyester fabric, offers high elongation and provides the membrane with the necessary resistance to heat aging, puncture, and rotting. The membrane is available in thicknesses of 4 and 5 mm.

The lower face of **TPY** membranes is covered with a polyethylene film to avoid sticking. This film melts immediately when exposed to flames during application, providing a visible sign of the membrane's proper melting temperature. The upper face is covered with fine sand, granules or colored slates when membrane is used as exposed top layer.

The combination of distilled bitumen, thermoplastic polymers, and elastoplastic copolymers in the membrane's composition allows it to withstand high temperatures while maintaining exceptional flexibility and durability at low temperatures.

### Advantages:

- ❑ Single-ply waterproofing layer.
- ❑ Fast, easy and clean application.
- ❑ Can be applied to repair existing asphalt roofing systems.
- ❑ Highly resistant to weathering.
- ❑ Resistant to salt solutions, dilute acids and alkalis.
- ❑ Resistant to U. V.



### Application:

- ❑ Observe American standard ASTM D5295 and Jordanian standard JS 1274 for the preparation of concrete surfaces for adhered (bonded) membrane waterproofing systems.
- ❑ Lay down the rolls so that the lower face with polyethylene film is applied in contact with the surface.
- ❑ To fix the roll to the surface, use a propane gas burner to melt off the polyethylene film and a thin layer of bitumen while unrolling and laying the membrane.
- ❑ Seams at overlaps should be properly secured and smoothed on with a hot round-tipped trowel.
- ❑ Side lap is 100mm and end lap is 150 mm.
- ❑ **TPY** membrane may be loosely laid, partially or fully bonded, depending on the structure and the specifications.

### Field of Application:

Due to its excellent resistance and elongation, **TPY** is used for a wide range of waterproofing applications such as:

- ❑ Roofs (reinforced concrete, prefabricated concrete, metal and timber deck).
- ❑ Roof gardens, terraces, kitchens, bathrooms, etc.
- ❑ Underground foundations, basements, and retaining walls.
- ❑ Reservoirs, basins and canals.

## Technical Specifications

Property	Result	Test Method	Tolerance According to UEAtc 30*
Dimension (m/roll)	1x10	-	± 1%
Thickness (mm)	4 or 5	ASTM D5147	± 5% (avg.)
Weight per roll (Kg)	50 or 62	UEAtc MOAT 30	PE ± 10% GR ± 15%
Reinforcement	Nonwoven Polyester 200 g/m <sup>2</sup>	UEAtc MOAT 30	± 15
Penetration of coating mixture at 25°C (dmm)	20	ASTM D5	± 10
Softening point of coating mixture (°C)	150	ASTM D36	± 10
Heat Resistance	No flowing after 2 hours at 120 °C	BS EN 1110	MDV**
Cold Pliability	No cracking at -12 °C	BS EN 1109	MDV**
Tensile Strength (N/5cm)		ASTM D5147, D146 & BS EN 12311	± 20%
Long.	850		
Transv.	650		
Ultimate Elongation (%)		ASTM D146 & BS EN 12311	± 15%
Long.	45		
Transv.	50		
Tear Strength (N)		ASTM D4073	MDV**
Long.	400		
Transv.	300		
Water Absorption (%)	<1	ASTM D5147	-
Static Indentation Resistance	Not perforated at 25 kg. (Class L4).	BS 747	-
Water Pressure Resistance	No leakage at 1000 mm water head/24 hrs.	UEAtc MOAT 27	-
Water Vapor Transmission	0.2 g/m <sup>2</sup> per day	ASTM E96	-
Resistance to U.V.	No deterioration	ASTM G53	-
Resistance to Chemicals	Resistant to alcohol, salt solutions, dilute acids and alkalis.	-	-

\*UEAtc: European Union of Agrément, MOAT No. 30

\*\*MDV: Minimum Declared Value

- Acceptable deviation according to UEAtc, ASTM D6164 or ASTM D6222.
- This Technical Data is the average results of tests, measurements and trials carried out by LAMA's own laboratory and according to international standards such as ASTM, B.S and UEAtc, Acceptable deviation according to UEAtc.
- This product data sheet supersedes all previous data publications pertaining to this product.
- This data may be changed, improved or modified by LAMA, in accordance with the Client's requirements, availability of raw material, without advance notice.