

FLAGON PM-SL 2.0, 2.1, 3.0 and 3.1 mm



TWO-COLOURED TPO MEMBRANE FOR UNDERGROUND WORKS

USE

FLAGON PM-SL is a two-colored TPO membrane used as a waterproofing layer in civil engineering and building structures, such as:

- Tunnels and buried galleries
- Covering of buried tunnels
- Sealed encasings of civil engineering structures

FLAGON PM-SL membrane can be used as part of a single-layer waterproofing system, compartmentalized or not, and in Flag Vacuum system.



APPLICATION

FLAGON PM-SL waterproofing membrane includes a thin colored layer or "signal layer" on the visible side of the membrane which allows any damage to be immediately identified and repaired.

The sheets are welded together by applying hot air, with manual or automatic welder. The welding can be made either with a single track that with double track. The double track allow to perform a pneumatic test with air.

FLAGON PM-SL is compatible with all the accessories and membranes within FLAGON TPO range.

SUGGESTED INSTALLATION EQUIPMENT

- Manual welding with hot air
- Automatic welding machine with hot air
- Automatic welding machine with double track

DESCRIPTION

FLAGON PM-SL membrane is a non-reinforced synthetic multi-ply membrane made by co-extrusion from TPO. It is highly resistant to attack by micro-organisms and perforation by roots. It is a different color on each side:

- The upper surface (green), which accounts for less than 20% of the total thickness, forms the "signal layer".
- The underside (black) is highly resistant to puncture and perforation by roots.

FLAGON PM-SL is not UV resistant.

SOPREMA prides itself in working with the highest quality products. We operate with quality assurance systems, and are certified ISO 9001.

✓ Excellent weldability

✓ Signal layer

✓ Flag Vacuum system



CHARACTERISTICS

ESSENTIAL CHARACTERISTIC	Standard	PM-SL 2.0 mm	PM-SL 2.1 mm	PM-SL 3.0 mm	PM-SL 3.1 mm	EN 13491
Tensile strength (N/mm ²)	EN ISO 527-3	≥ 17 (L/T)				
Static puncture resistance (kN)	EN ISO 12236	≥ 1,6	≥ 1,7	≥ 2,2	≥ 2,3	
Water permeability	EN 14150	< 10 ⁻⁶ m ³ m ⁻² d ⁻¹				
Durability: - Oxidation, variation in tensile properties (%) - Environmental stress cracking (h)	EN 14575 ASTM D 5397	≤ 25 ≥ 200				

ADDITIONAL CHARACTERISTIC	Standard	PM-SL 2.0 mm	PM-SL 2.1 mm	PM-SL 3.0 mm	PM-SL 3.1 mm
Nominal Thickness (mm)	EN 1849-2	2.0 (-5% +10%)	2.1 ≥ 2.0	3.0 (-5% +10%)	3.1 ≥ 3.0
Mass per unit area (kg/m ²)	EN 1849-2	1,8	1,9	2,7	2,8
Elongation to break (%)	EN ISO 527-3	≥ 700			
Water permeability	EN 1928 (B)	Watertight			
Resistance to impact (mm)	EN 12691	≥ 750	≥ 750	≥ 1 250	≥ 1 250
Tear strength (N/mm)	EN 12310-2 ISO 34 sample fig.2	≥ 90 ≥ 55			
Cold bending (°C)	EN 495/5	≤ - 40			
Resistance to perforation by roots	CEN TS 14416	No perforation			

PACKAGING

Thickness	2.0 mm	2.1 mm	3.0 mm	3.1 mm
Numbers of rolls on each pallet	18	18	11	11
Roll length / width	20 m (other lengths available on request) / 2.10 m			
Color	Green (surface) / Black (underside)			

CE MARKING

Unique identification code of the product-type: WPSIT0038
 FLAGON PM-SL membranes are produced by SOPREMA srl in Chignolo d'Isola (Italy) and are CE marked in accordance with EN 13491 certificate no. 1085-CPR-0013.