



FLAGON PM/SL 2.0 and 3.0 mm

TWO-COLOURED TPO MEMBRANE FOR UNDERGROUND WORKS

USE - APPLICATION

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

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

The sheets are welded together by applying hot air or using hot wedge, with manual or automatic welder. The welding can be made either with a 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 in the FLAGON TPO range.

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 colour on each side:

- the upper surface (orange), 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.

CIVILROCK attaches the highest importance to the quality of its products. This is why we operate a quality assurance system according to ISO 9001 BSI certified.

MAIN ADVANTAGES

- Excellent weldability
- Includes a signal layer
- High resistance to attack by micro-organisms and perforation by roots
- Can be used in the Flag Vacuum system

SUGGESTED INSTALLATION EQUIPMENT

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

SOPREMA srl reserves the right, as technology and know-how progress, to modify without warning the composition and conditions of use of its materials, and subsequently their price. As a result, orders shall only be accepted on the basis of the terms and technical specifications applicable at the time of receipt.





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CHARACTERISTICS

ESSENTIAL CHARACTERISTIC	Standard	PM/SL 2.0 mm	PM/SL 3.0 mm	EN 13491
Tensile strength (N/mm ²)	EN ISO 527-3	> 13 (L/T)		
Static puncture resistance (N)	EN ISO 12236	> 1 800	> 2 700	
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 3.0 mm
Thickness (mm)	EN 1849-2	2.0 (±5%)	3.0 (±5%)
Mass per unit area (kg/m ²)	EN 1849-2	1,80	2,70
Elongation at break (%)	EN ISO 527-3	≥ 600	
Water permeability after 6 hrs at 0.5Mpa	EN 1928 (B)	Watertight	
Resistance to impact (mm)	EN 12691	≥ 750	≥ 1 250
Tear strength (N/mm) (N/mm)	EN 12310/2 ISO 34 sample fig.2	≥ 80 ≥ 55	
Cold bending (°C)	EN 495/5	≤ - 40	
Resistance to perforation by roots	CEN TS 14416	No perforation	

PRODUCTION STANDARD

Thickness	2.0mm	3.0mm
Numbers of rolls on each pallet	18	11
Roll length / width	20ml (other lengths available on request) / 2.10ml	
Colour	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 EN13491 certificate no. 1085-CPR-0013.

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