

FLAGON[®] BSL

WPSIT0013.a

DESCRIPTION

FLAGON BSL membrane is a non-reinforced, synthetic PVC-P membrane made by co-extrusion. It is highly resistant to attack by micro-organisms and perforation by roots. It is a different color on each side:

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

FLAGON BSL is not UV resistant.

It's also available FLAGON BSL/300, having a non-woven geotextile 300 g/m² coupled on the lower face of the membrane.

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.



FEATURES

- 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

PACKING AND STORAGE

Rolls must be stored in upright position to prevent damage. Store rolls in a clean dry location and cover as necessary to protect from any environmental impact such as extreme cold, heat, or moisture. Monitor varying environmental conditions during storage, handling and application of FLAGON[®] BSL.

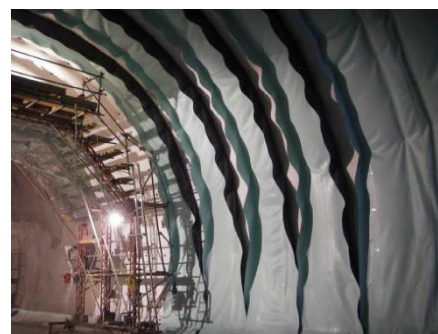
INTENDED USE OR USES

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

- Tunnels and buried galleries
- Cut and cover tunnels
- Underground works
- Coverings of buried structures
- Underground car parks

The waterproofing membrane FLAGON BSL includes a thin coloured layer on the visible face of the membrane that allows a quick visual check of any damage occurred to the membrane during the application. This layer is called the "signal-to-layer".

FLAGON BSL 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.



Rev. 11.07.2018/EN



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Technical Data

ESSENTIAL CHARACTERISTIC	Standard	BSL 2.0 mm	BSL 3.0 mm
Tensile strength (N/mm ²)			
Longitudinal	EN 12311-2	> 15	
Transversal		> 14	
Elongation at break (%)			
Longitudinal	EN 12311-2	> 300	
Transversal		> 280	
Water permeability at 2 kPa and 60 kPa	EN 1928 (B)	Watertight	
Reaction to fire	EN 13501-1	E	
Tear strength (N)	EN 12310-1	> 500	> 750
Joint strength (N/50mm)	EN 12317-2	> 1,100	> 1,500
Resistance to impact (mm)	EN 12691	≥ 750	≥ 1,200
Resistance to static loading (kg)	EN 12730	> 20	
Durability			
After thermal ageing	EN 1296	Watertight at 2kPa and 60 kPa	
After immersion in chemicals	EN 1847	Watertight at 2kPa and 60 kPa	
Tensile strength (N/mm ²)			
Longitudinal	EN ISO 527-3	> 15	
Transversal		> 14	
Water permeability	EN 14150	<10 ⁻⁶ m ³ m ⁻² d ⁻¹	
Static puncture resistance (N)	EN ISO 12236	> 2,500	> 3,400
Resistance to oxidation variation in tensile strength (%)	EN 14575	≤ 25	
Thickness (mm)	EN 1849-2	2.0 (±5%)	3.0 (±5%)
Mass per unit area (kg/m ²)	EN 1849-2	2.6	3.9
Tear strength (N/mm)	ISO 34 sample fig.2	≥ 45	
Cold bending (°C)	EN 495/5	≤ -25	
Resistance to perforation by roots	CEN TS 14416	No perforation	

EN 13967

EN 13491

Production Standards

Thickness	2.0mm	3.0mm
Number of rolls on each pallet	18	11
Roll length / width	20ml (other lengths available on request) / 2.10ml)	
Available colours	Light green (surface)/ Dark Grey (underside)	

CE MARKING

Unique identification code of the product-type: WPSIT0033

FLAGON BSL membranes are produced by SOPREMA srl in Chignolo d'Isola (Italy) and are CE marked in accordance with EN 13491:2013, certificate no. 1085-CPR-0012 and with EN 13967:2012, certificate no. 1085-CPR-0036.

DECLARATION FROM MANUFACTURER

CIVILROCK 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.

INSPECTION AND MAINTENANCE

We recommend that inspections are carried out annually to confirm counterflashing, ensure drains are clear of blockages and to observe if any mechanical damage has occurred. Issues should be reported and rectified immediately. Our SOPREME Trading Bitumen membrane range is designed to last more than 10 years with the correct maintenance regime in place. Contact your local SOPREME Trading representative for any additional information.

QUALITY AND RESPONSIBLE CARE

All products distributed through SOPREME Trading (Pty) Ltd are manufactured under a management system independently certified to conform to the requirements of the quality standards ISO 9001, environmental and occupational health and safety standards.

TECHNICAL SUPPORT

Technical support, where provided, does not constitute supervisory responsibility. For additional information contact your local SOPREME Trading (Pty) Ltd representative. SOPREME Trading (Pty) Ltd shall not be liable for technical advice provided. SOPREME Trading (Pty) Ltd reserves the right to have the true cause of any difficulty determined by accepted test methods. Undertaking such tests is not, and shall not be deemed to be, an admission of liability or an assumption of any risk, loss, damage or liability.

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