

FLAGON BT/ST 2.0 mm

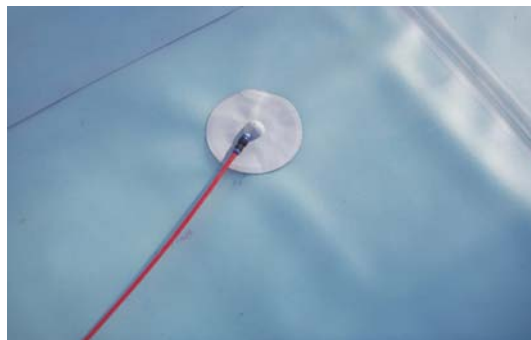
STRUCTURED TRANSPARENT PVC-P MEMBRANE FOR FLAG VACUUM SYSTEM

USE – APPLICATION

Structured transparent membrane specifically designed to waterproof with the FLAG Vacuum system. It performs the function of layer functionality Vacuum and is positioned above the waterproofing PVC membrane. The special embossed surface allows the execution of tests Vacuum and facilitate the eventual operations of resin injections.

This system can be used in civil engineering and building operations, such as:

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



The waterproofing membrane FLAGON BT/ST is combined with FLAGON BT or FLAGON BSL waterproofing membrane and FLAGON PZ protection membrane to make up the "FLAG Vacuum" system. This system consists of making a two-ply, compartmentalised waterproof wall. This system allows waterproofing tests to be carried out at all the stages of construction, and also throughout the lifespan of the structure. Furthermore, this process allows the volume of any injections to be checked if necessary.

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 allows to perform a pneumatic test with air.

FLAGON BT/ST is compatible with all the accessories and membranes in the FLAGON PVC range.

In combination to this membrane are the following accessories:

- Injection valves,
- Injection clips $\varnothing 10$ mm,
- Injection pipe $\varnothing 10$ mm.

DESCRIPTION

FLAGON BT/ST membrane is a transparent non-reinforced synthetic single-ply PVC-P membrane made by co-extrusion. It is highly resistant to attack by micro-organisms and perforation by roots. The transparency of this membrane allows excellent visual quality control of the welding.

FLAGON BT/ST 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
- Can be used in the Flag Vacuum system
- Transparency, facilitates visual inspection of welds
- High resistance to attack by micro-organisms and perforation by roots
- Embossed surface for the execution of Vacuum tests

SUGGESTED INSTALLATION EQUIPMENT

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

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.



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CHARACTERISTICS

	Standard	BT/ST
Thickness including embossing (mm)	EN 1849-2	2.0 (±5%)
Mass per unit area (kg/m ³)	EN 1849-2	2.40
Tensile strength (N/mm ²)	EN ISO 527-3 EN 12311-2	> 14 (L/T)
Elongation at break (%)	EN ISO 527-3 EN 12311-2	> 250
Water permeability after 6 hrs at 0.5Mpa	EN 1928 (B) EN 14150	Watertight < 10 ⁻⁶ m ³ m ⁻² d ⁻¹
Static puncture resistance (N) (kg)	EN ISO 12236 EN 12730	> 2000 > 20
Tear strength (N) (N/mm)	EN 12310/1 EN 12310/2	> 120 ≥ 70
Cold bending (°C)	EN 495/5	< - 25
Resistance to perforation by roots	CEN TS 14416	No perforation
Resistance to oxidation variation in tensile strength (%)	EN 14575	≤ 25
Reaction to fire	EN 13501-1	E
Joint strength (N/50mm)	EN 12317-2	> 750
Resistance to impact (mm)	EN 12691	≥ 750
Durability After thermal ageing After immersion in chemicals	EN 1296 EN 1847	Watertight at 2kPa and 60 kPa Watertight at 2kPa and 60 kPa

PRODUCTION STANDARD

Thickness	2.0mm (excl. structure)
Number of rolls on each pallet	14
Roll length / width	20ml (other lengths available on request) / 2.10ml
Colour	Transparent

CE MARKING

Unique identification code of the product-type: WPSIT0022

FLAGON BT/ST membranes are produced by the FLAG Spa factory (SOPREMA group) in Chignolo d'Isola (Italy) and are CE marked no. 1085-CPD-0012 in accordance with EN 13491:2004 + A1:2006 and no. 1085-CPD-0036 in accordance with EN 13967:2012.

DOCUMENTATION

The installation of FLAGON BT/ST membranes is dealt with in the specific documents on the waterproofing of underground structures using the FLAG Vacuum system.

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