



SINTOFOIL ST WPS

Non-reinforced TPO/FPA synthetic membrane for underground waterproofing.

DESCRIPTION:

Synthetic waterproofing membrane produced by co-extruding a uniform highly flexible elastomeric polyolefin alloy.

The membrane features contrasting colours on its upper and lower faces, providing a signal layer so that any damage occurring during or after installation will be immediately apparent. It is not UV resistant. SINTOFOIL ST WPS membranes comply with CE marking requirements, if applicable ⁽¹⁾.

Notes: ⁽¹⁾ The membrane is equipped with specific accessories, to be requested explicitly.

APPLICATION:

SINTOFOIL TPO/FPA membranes are welded by hot air welding equipment, such as manual or automatic hot air welding machines with temperature control. The installation should be carried out in accordance with the [Manual for installation of single ply polymer membranes for underground waterproofing](#).



FIELDS OF APPLICATION:

Specific use:

- SINTOFOIL ST WPS membrane is designed for waterproofing of underground structures: foundations, retaining walls, natural and artificial tunnels.

TECHNICAL FEATURES:

Properties	Test Method	Performance ⁽²⁾		
Standard thickness, mm	EN 1849-2	1.5	1.8	2.0
Density, kg/m ²	EN 1849-2	1.35	1.62	1.80
Tensile strength L/T, N/50 mm	12311-2/ISO 527	15 / 15		
Elongation at break L/T, %	12311-2/ISO 527	600 / 600		
Dimensional stability, %	EN 1107-2	≤ 0.5		
Cold flexibility, °C	EN 495/5	≤ -40 ⁽³⁾		
Tear resistance L/T, N	EN 12310/1	450 / 400	550 / 500	650 / 600
Resistance to static loading, kg	EN 12730/B	≥ 25		
Water tightness (60 kPa)	EN 1928	Absolute		
Joint strength: Tensile strength, N/cm	EN 12317-2	Compliant (specimen fails outside bond area)		
Joint strength: Peeling, N/cm	EN 12316-2	≥ 58		
Durability: Waterproofing after thermal ageing	EN 1926 EN 1928	Passes the test at 60 kPa		
Resistance to algae and microorganisms	ISO 846 Level 2	Compliant		
Root resistance	EN 13948	Passes the test		

⁽²⁾ Tolerances as per EN 13967.

⁽³⁾ Not tested at lower temperatures.

PRODUCTION STANDARDS

Thickness (*)	mm	1.5	1.8	2.0
Width	m	2.10	2.10	2.10
Length (*)	m	25	20	20
Color (*)		Beige / Black		

(*) Different thicknesses, lengths and colors are available on demand and for minimum quantities.