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TECHNICAL DATA SHEET 01/12.2023

# SINTOFOIL RT

Polyester reinforced TPO/FPA membrane for single ply waterproofing of exposed flat roofs

### DESCRIPTION:

Synthetic waterproofing membrane produced by co-extruding a UV resistant elastomerised TPO/FPA thermoplastic olefin and flexible polypropylene alloy with a polyester net reinforcing mat. The membrane features contrasting colors on its upper and lower faces, providing a signal layer so that any damage occurring during or after installation will be immediately apparent.

Available in BIANCO REFLECTA version, manufactured with the upper side of the membrane in WHITE REFLECTA color. This enhances the reflectance and emission features giving the roof a Solar Reflectance Index (SRI) value that reach 102%. Also available in the fire resistant versions:

- Sintofoil RT/FR1 Behavior to external fire (ENV 13501-5) Broof (t1).
- Sintofoil RT/FR2 Behavior to external fire (ENV 13501-5) Broof (t2).
- Sintofoil RT/FR3 Behavior to external fire (ENV 13501-5) Broof (t3).



#### APPLICATION:

SINTOFOIL RT membrane is installed by mechanical fastening in seam overlaps area. Overlap seams 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 <a href="Manual for installation of single-ply-polymer roofing and waterproofing membranes">Manual for installation of single-ply-polymer roofing and waterproofing membranes</a>.

# FIELDS OF APPLICATION:

- Mechanically fixed exposed roof systems.
- Waterproofing layers applied independently under heavy-duty fixed or movable protection: roofing exposed to foot traffic; inverted roofs.

## **TECHNICAL FEATURES:**

Properties	Test Method	Performance				
Standard thickness, mm	EN 1849-2	1.2	1.5	1.8	2.0	
SRI – Solar Reflectance Index,%	ASTM Standard E1980	102 (2)				
Tensile strength L/T, N/50 mm	EN 12311-2	1100				
Elongation at break L/T, %	EN 12311-2	25				
Dimensional stability, %	EN 1107-2	≤ 0.5				
Cold flexibility, °C	EN 495/5	≤ -40 <sup>(3)</sup>				
Tear resistance L/T, N	EN 12310/1	550 / 650				
Water vapor permeability (resistance factor $\mu$ )	EN 1931	50.000				
Resistance to static loading, kg	EN 12730/B	≥ 25				
Resistance to impact, mm	EN 12691/B	≥ 1200				
Hail resistance, m/s	EN 13583	≥ 30 <sup>(4)</sup>				
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				
Resistance to artificial UV light	EN 1297-5000 h	No surface damage or significant changes in cold flexibility as per EN 495/5				
Reaction to fire	EN 13501-1	Class E				
Behavior to external fire	EN 13501-5	Froof (5)				
Resistance to algae and microorganisms	ISO 846 Level 2	Compliant				
Root resistance	EN 13948	Passes the test				

<sup>(1)</sup> Tolerances as per EN 13956 and/or UEAtc Directives.
(2) Reflecta White version.
(3) Not tested at lower temperatures.
(4) Not tested at higher speeds.
(5) Also available in the fire resistant versions (external fire behaviour), in Broof class according to EN 13501-5: SINTOFOIL RT/FR2, SINTOFOIL RT/FR3 (consult the specific data sheet - SINTOFOIL RT/FR).

PRODUCTION STANDARDS									
Thickness (*)	mm	1.2	1.5	1.8	2.0				
Width	m	2.10	2.10	2.10	2.10				
Length (*)	m	25	25	20	20				
Standard color (*)		Grey / Black							

<sup>(\*)</sup> Different thicknesses, lengths and colors are available on demand and for minimum quantities.