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TECHNICAL DATA SHEET 01/ 12.2023

SINTOFOIL RG FB

Fiberglass reinforced TPO/FPA membrane for single ply waterproofing of exposed flat roofs bonded on the lower face with nonwoven polyester fabric.

DESCRIPTION:

Synthetic waterproofing membrane produced by co-extruding a UV resistant elastomerised TPO/FPA thermoplastic olefin and flexible polypropylene alloy with a fiberglass reinforcing mat bonded on the lower face with nonwoven polyester fabric. 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%. SINTOFOIL RG FB membranes comply with CE marking requirements, if applicable.



APPLICATION:

SINTOFOIL RG FB TPO/FPA membrane is welded by hot air equipment, such as manual or automatic hot air welding machines with temperature control. Thanks to the layer of laminated geotextile, the membrane can be glued to various types of bases - concrete, metal, LOGICPIR thermal insulation boards, as well as to bitumen membranes.

FIELDS OF APPLICATION:

- Waterproofing of flat roofs in adhered roof systems.
- Waterproofing layers applied independently under heavy-duty fixed or movable protection for: roofing exposed to foot and vehicular traffic; roof gardens.

Properties	Test Method	Performance ⁽¹⁾				
Standard thickness, mm	EN 1849-2	1.2	1.5	1.8	2.0	
Tensile strength L/T, N/50 mm	EN 12311-2	600 / 550	650 / 600	750 / 750	800 / 800	
Elongation at break L/T, %	EN 12311-2	700 / 700				
Dimensional stability, %	EN 1107-2	≤ 0.1				
Cold flexibility, °C	EN 495/5	≤ -40 ⁽²⁾				
Tear resistance L/T, N $^{(\star)}$	EN 12310/1	500/450 (*)	650/600 (*)	750/700 (*)	850/800 (*)	
Water vapor permeability (resistance factor $\boldsymbol{\mu})$	EN 1931	50.000				
Resistance to static loading, kg $^{(\star)}$	EN 12730/B	≥ 25 ^(★)				
Resistance to impact, mm (*)	EN 12691/B	≥ 1000 (*)				
Hail resistance, m/s	EN 13583	≥ 30 ⁽³⁾				
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				
Change in tensile strength, $\Delta\%$	EN 12311-2	-5				
Change in elongation at break, $\Delta\%$	EN 12311-2	-5				
Reaction to fire	EN 13501-1	Class F				
Resistance to algae and microorganisms	ISO 846 Level 2	Compliant				
Root resistance	EN 13948	Passes the test				

TECHNICAL FEATURES:

⁽¹⁾ Tolerances as per EN 13956 and/or UEAtc Directives.

⁽²⁾ Not tested at lower temperatures.

^(*) The values indicated refer to the TPO / FPA membrane without nonwoven polyester fabric backing, except for the values marked with an asterisk (*), that refer to the finished product. ⁽³⁾ Not tested at higher speeds.

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						

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