

SINTOFOIL RG**Description**

Synthetic waterproofing membrane produced by co-extruding a UV resistant elastomerised TPO/FPA thermoplastic olefin and flexible polypropylene alloy with a fibreglass reinforcing mat that makes it dimensionally stable. 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. Available in BIANCO REFLECTA version, manufactured with the upper side of the membrane (top) in WHITE REFLECTA colour, by means of a treatment developed in mass in the entire layer that covers the top of the reinforcement. This process 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 (external fire behaviour), in Broof class according to EN 13501-5: SINTOFOIL RG/FR1⁽¹⁾, SINTOFOIL RG/FR2⁽²⁾, SINTOFOIL RG/FR3⁽³⁾, SINTOFOIL RG/FR4⁽⁴⁾ (consult the specific data sheet - SINTOFOIL RG/FR). SINTOFOIL RG membranes comply with CE marking requirements, if applicable.

Notes: (1) Sintofoil RG/FR1 – Behaviour to external fire (ENV 13501-5) Broof (t1).
(2) Sintofoil RG/FR2 – Behaviour to external fire (ENV 13501-5) Broof (t2).
(3) Sintofoil RG/FR3 – Behaviour to external fire (ENV 13501-5) Broof (t3).
(4) Sintofoil RG/FR4 – Behaviour to external fire (ENV 13501-5) Broof (t4).

System certifications

QMS certification according to ISO 9001.

Product certifications

Regulation CPR 305/2011/EU.

EELAB, BBA, CSTB, SK-Z, UBATC, LAPI, Istituto Giordano and ITC certifications.

This product can contribute to acquiring points in terms of LEED accreditation.

Fields of application**Specific use**

- Waterproofing layers applied independently under heavy-duty fixed or movable protection for:
 - roofing exposed to foot traffic;
 - roof gardens.
- Mechanically retained waterproofing for:
 - exposed roofs.

Note: Given the versatility and reliability of SINTOFOIL membranes, other applications can be developed with the assistance of the IMPER ITALIA srl – Technical Services.

Application

SINTOFOIL membranes are designed for easy bonding with a hot air gun, as no adhesives or other materials of any kind are required. Design solutions and application methods are illustrated in the technical manual published by Imper Italia srl.

Waterproofing systems employing SINTOFOIL membranes should be laid by installers authorised by Imper Italia srl Technical Services.

TECHNICAL FEATURES ⁽¹⁾

Features	EN Standards	U.M.	Tolerance	Values			
Standard thickness	1849-2	mm	(-5/+10%)	1,2	1,5	1,8	2,0
SRI – Solar Reflectance Index	ASTM Standard E1980	%		102 ⁽²⁾			
Tensile properties							
• Tensile strength L/T	12311-2	N/50 mm		600 / 550	650 / 600	750 / 750	800 / 800
• Elongation at break L/T	12311-2	%		700 / 700			
Dimensional stability	1107-2	%		≤ 0.1			
Cold flexibility	495/5	°C		≤ -40 ⁽³⁾			
Tear resistance L/T	12310/1	N		390 / 290	450 / 400	500 / 450	600 / 550
Water vapour permeability (resistance factor μ)	1931			50.000			
Resistance to static loading	12730/B	kg		≥ 25			
Resistance to impact	12691/B	mm		≥ 1000			
Hail resistance	13583	m/s		≥ 30 ⁽⁴⁾			
Water tightness (60 kPa)	1928			Absolute			
Joint strength							
• Tensile strength	12317-2	N/cm		Compliant (specimen fails outside bond area)			
• Peeling	12316-2	N/cm		≥ 58			
Durability							
• Resistance to artificial UV light	1297-5000 h			No surface damage or significant changes in cold flexibility as per EN 495/5			
Heat aging in area							
• Change in tensile strength	12311-2	Δ%		-5			
• Change in elongation at break	12311-2	Δ%		-5			
Reaction to fire	13501-1			Class E			
Behaviour to external fire	13501-5			Proof ⁽⁵⁾			
Resistance to algae and microorganisms	ISO 846 Level 2			Compliant			
Root resistance	13948			Passes the test			

Notes: (1) 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 Proof class according to EN 13501-5: SINTOFOIL RG/FR1, SINTOFOIL RG/FR2, SINTOFOIL RG/FR3, SINTOFOIL RG/FR4 (consult the specific data sheet - SINTOFOIL RG/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 colour ^(*)		Grey / Black			

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

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Considerando le diverse situazioni d'impiego dei prodotti e l'intervento di fattori da noi non dipendenti (supporti, condizioni di esercizio, in osservanza delle prescrizioni, ecc.), non è possibile alla IMPER ITALIA srl assumere responsabilità in merito ai risultati ottenuti. Il progresso unito alla costante ricerca dei massimi livelli prestazionali possono apportare - nel tempo - modificazioni alle informazioni contenute in questo stampato, senza che la IMPER ITALIA srl debba darne preavviso a tutti gli interessati.



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