

SINTOFOIL ST



1. PRODUCT DESCRIPTION

Synthetic waterproofing membrane produced by co-extruding a uniform UV resistant elastomerized TPO/FPA thermoplastic olefin and flexible polypropylene alloy.

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.

SINTOFOIL ST membranes comply with CE marking requirements where applicable.

2. SPECIFICATIONS ⁽¹⁾

Standard thickness (EN 1849-2)	mm	1.2	1.5	1.8	2
Standard dimensions (EN 1848-2)	m	2.10 × 25 1.50 × 30			
Standard colors ⁽²⁾	Gray				
Density (EN 1849-2)	kg/m ²	1.08	1.35	1.62	1.8
Tensile properties (EN 12311-2)					
• Tensile strength, L/T	N/mm ²	16/15			
• Ultimate elongation, L/T	%	700/700			
Cold flexibility (EN 495/5)	°C	≤-40 ⁽³⁾			
Dimensional stability (EN 1107-2)	%	≤0.5			
Tear resistance, L/T (EN 12310/1)	N	330/240	450/400	550/500	650/600
Water vapor permeability ((μ coefficient) (EN 1931)	90.000				
Puncture resistance – Static indentation (EN 12730/B)	≥L25				
Puncture resistance – Dynamic indentation (EN 12691/B)	mm	≥1000			
Hail resistance (EN 13583)	m/s	≥30 *			
Watertightness (60kPa) (EN 1928)	Absolute				
Joint strength					
- Tensile strength (EN 12317-2)	Passes test (specimen fails outside bond area)				
- Peeling (EN 12316-2)	N/cm	≥58			
Durability					
- Resistance to artificial UV weathering (EN 1224-5000 h)	No surface damage or significant changes in cold flexibility as per EN 495/5				
• Heat aging in air					
- Change in tensile strength (EN 12311-2)	Δ%	-5			
- Change in ultimate elongation (EN 12311-2)	Δ%	-5			
Wind load resistance (wind suction test) (UEAtc)					
- Mechanically retained system	Pa	≥5500			
Fire reaction rating (EN 13501-1)	Classe E ⁽⁴⁾				
Fire resistance (ENV 13501-5)	Broof (t1) ⁽⁵⁾				
Resistance to algae and microorganisms (EN ISO 846 level 2)	Complies with requirements				
Root resistance (FLL)	Passes test				
Contact with potable water (DW type) (Ministerial Decree No. 220 of April 26, 93 – OG No. 162/13-07-1993)	Approved				

3. RECOMMENDED USES

SINTOFOIL ST membranes are designed specifically for:

- Adhesive bonded waterproofing on exposed roofing (can also be bonded with bitumen).
 - Renewing and rejuvenating waterproof bitumen covering materials. ⁽⁴⁾
- Waterproofing layers applied independently under heavy-duty fixed or movable protection for:
- Roofing exposed to foot and vehicular traffic and roof gardens
 - Mechanically retained waterproofing on exposed roofs.

Note: Given the versatility and reliability of SINTOFOIL membranes, other applications can be developed with the assistance of the Imper Italia RUBBERFUSE Division Technical Services.

4. CHEMICAL RESISTANCE

SINTOFOIL ST membranes are particularly resistant to contact with a wide range of acids and bases with no loss in performance.

However, suitability for applications involving prolonged contact with corrosive agents, hydrocarbons, oils and greases, particularly at high temperatures, must be evaluated on a case by case basis.

5. METHODS OF 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 the RUBBERFUSE Division.

Waterproofing systems employing SINTOFOIL membranes should be laid by installers authorized by RUBBERFUSE Division Technical Services.

- Notes: (1) Tolerances as per EN 13956 and/or UEAtc Directives.
(2) Color of exposed face. Lower face is black to serve as a signal layer.
Exposed face is available in other colors on request.
(3) Not tested at lower temperatures.
(4) Fire Labs Test Report No. FLT KE2157207.
(5) Warringtonfiregent - Classification Report for roofs/roof coverings exposed to external fire No. 13561B
(Sintofoil ST/noncombustible substrate).
(*) = Not tested at higher speeds

R-ST/E.3

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The data stated refer to average standard effective on the date of print. IMPER ITALIA S.p.A. is entitled to amend/change these data without notice.

ISO 9001
ISO 14001
OHSAS 18001
BUREAU VERITAS
Certification



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