



Product description

SBS (styrene-butadiene-styrene) modified bitumen polymer waterproofing membrane. TECNOFLEX Series prefabricated membranes include TECNOFLEX NT (non-woven continuous filament polyester fabric reinforcing mat, TERMOTENE thermoplastic film treatment on upper face, available thicknesses 3 and 4 mm), TECNOFLEX NT ARD (non-woven continuous filament polyester fabric reinforcing mat, upper face surfaced with slate chippings, available in 4 and 4.5 kg/m² grades), TECNOFLEX W (glass tissue reinforcement, TERMOTENE thermoplastic film treatment, available in 3 and 4 kg/m² grades) and TECNOFLEX W ARD (glass tissue reinforcement, upper face surfaced with slate chippings, available in 4 and 4.5 kg/m² grades). The bitumen-polymer compound's special formulation ensures high mechanical performance, cold flexibility at temperatures down to -20°C, and excellent fatigue strength. In addition, the compound's ultimate elongation exceeds 1000%. TECNOFLEX Series membranes are supplied in strapped rolls, each accompanied by a Quality Control Certificate. Lower face of all types is coated with TERMOTENE film. TECNOFLEX Series membranes comply with CE marking requirements where applicable. They contain no asbestos, tar or other dangerous substances.

Recommended uses

TECNOFLEX membranes are designed for waterproofing applications of all kinds. In particular, TECNOFLEX membranes are ideal for use in cold climates or during cold weather. For membrane versions to be used in roofing, foundation and below-grade applications, see the table below.

For detailed documentation and guidance regarding product application, consult IMPER ITALIA S.p.A. Technical Services.

PRODUCT	USE ⁽¹⁾							
	Roofing (EN 13707)					Roofing underlay (EN 13859-1)	Vapor control (EN 13970)	Foundations (EN 13969)
	Exposed		Roof gardens	Under heavy-duty protection				Multi-ply
	Single-ply	Built-up		Root resistant	Single-ply	Multi-play		
Cap sheet		Base ply						
TECNOFLEX W3			•					
TECNOFLEX W4			•					
TECNOFLEX NT3			•			•		•
TECNOFLEX NT4			•		•	•		•
TECNOFLEX W/ARD		•					•	
TECNOFLEX NT/ARD		•					•	

⁽¹⁾ In compliance with applicable standards and AISPEC-MBP guidelines.

Methods of application

TECNOFLEX membranes are designed for easy torch application after priming using a suitable primer, except for polyester-reinforced versions, which are secured using mechanical means. Waterproofing performance will depend to a significant extent on application methods. TECNOFLEX Series membranes are applied using a propane torch. Special care must be taken at joints, which must be overlapped. Membrane must be laid to allow side laps of 8 to 10 cm and end laps of 12 to 15 cm. As bitumen-polymer compounds are damaged by exposure to UV radiation, TECNOFLEX Series membranes should always be used under heavy-duty protection. If heavy-duty protection cannot be provided, slate surfaced membrane should be used in exposed areas. When designing and installing built-up waterproofing systems, take care to employ compatible SBS modified membranes.

For detailed documentation and guidance in selecting the most appropriate procedures for any job, consult IMPER ITALIA S.p.A. Technical Services, who will be happy to provide assistance and advice in designing special waterproofing systems and helping you make the best use of these materials.

SPECIFICATIONS⁽¹⁾

Properties	EN standards	Unit of measure	Tolerances ⁽¹⁾	TECNOFLEX					
				W3	W4	W/ARD ⁽²⁾	NT3	NT4	NT/ARD ⁽²⁾
Roll dimensions	1848-1	m	≥	10 × 1 (-1%)					
Thickness	1849-1	mm	±5 %	-	-		3	4	-
Mass	1849-1	kg/m ²	±10 %	3	4	4-4.5	-	-	4-4.5
Watertightness	1928-B	kPa	≥	60					
Cold flexibility	1109	°C	≤	-20					
Hot creep	1110	°C	≥	100					
Tensile strength, L/T	12311-1	N/5cm	±20%	300/200	300/200	300/200	650/500	650/500	650/500
Tensile elongation, L/T	12311-1	%	±15 ⁽³⁾	2/2	2/2	2/2	40/40	40/40	40/40
Dimensional stability, L/T	1107-1	%	≤	-	-	-	0.5	0.5	0.5
Puncture resistance Static indentation	12730	kg	≥	NPD ⁽⁴⁾					
Puncture resistance Dynamic indentation	12691	mm	≥	NPD ⁽⁴⁾					
Tear resistance, L/T	12310-1	N	±30%	-	-	-	150/160	150/160	150/160
Joint peel resistance	12316-1	N/5cm	±20 N	-	-	-	-	200	-
Joint cut resistance	12317-1	N/5cm	±20%	-	-	-	-	650/450 ⁽⁵⁾	-
Durability after aging: - Cold flexibility	1296-1109	°C	+15°C	-5					
- Hot creep	1296-1110	°C	-10°C	+100					
- UV weathering exposure	1297	-	-	NPD ⁽⁴⁾	NPD ⁽⁴⁾	-	NPD ⁽⁴⁾	NPD ⁽⁴⁾	-
- Watertightness	1296-1928	kPa	≥	60					
- Chemical resistance	-	-	-	NPD ⁽⁴⁾					
- Tensile strength, L/T	12311-1	N/5cm	±20%	-					
- Tensile elongation, L/T	12311-1	%	±15 ⁽³⁾	-					
Water vapor permeability	1931	μ	≥	20.000					
Root resistance	LG Aispec		-	NPD ⁽⁴⁾					
Fire resistance	13501-5	EC ⁽⁶⁾	-	F Roof					
Fire reaction rating	13501-1	EC ⁽⁶⁾	-	F					

⁽¹⁾ In compliance with applicable standards and AISPEC-MBP guidelines.

⁽²⁾ Standard upper face color: natural slate gray.
Also available in red and green.

⁽³⁾ ±2 for glass tissue reinforcement.

⁽⁴⁾ Not determined, because not relevant for application.

⁽⁵⁾ Or failure away from joints.

⁽⁶⁾ Euroclass.

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