

PARAFLEX SERIES



Product description

SBS (styrene-butadiene-styrene) modified bitumen polymer waterproofing membrane. PARAFLEX Series prefabricated membranes include PARAFLEX NT (non-woven continuous filament polyester fabric reinforcing mat stabilized with mineral fibers, TERMOTENE thermoplastic film treatment on upper face, available thicknesses 3 and 4 mm); PARAFLEX W (glass tissue reinforcement, TERMOTENE thermoplastic film treatment on upper face, available thicknesses 3 and 4 mm); PARAFLEX ARD/HS (non-woven continuous filament polyester fabric reinforcing mat stabilized with mineral fibers, upper face surfaced with slate chippings, thickness 4 mm plus slate) and PARAFLEX ARD/S (continuous filament polyester fabric reinforcing mat stabilized with mineral fibers, upper face surfaced with slate chippings, density 4.5 kg/m²). Lower face of all types is coated with TERMOTENE film. On the optional PARAFLEX NT4 M version, both faces are coated with high value-added TEXTENE® preformed textured polymer fiber film, which enhances the product, improving durability and appearance. The bitumen-polymer compound's special formulation ensures high mechanical performance, cold flexibility at temperatures down to -25°C), and excellent fatigue strength. In addition, the compound's ultimate elongation exceeds 2000%. PARAFLEX Series membranes are supplied in strapped rolls, each accompanied by a Quality Control Certificate. PARAFLEX Series membranes comply with CE marking requirements where applicable. They contain no asbestos, tar or other dangerous substances.

Certification

European Technical Approval certification (formerly ICITE Agrément certification): PARAFLEX NT4 – PARAFLEX ARD/HS – PARAFLEX W3 – PARAFLEX ARD/S. Factory mutual approval: PARAFLEX NT – PARAFLEX ARD/S.

Recommended uses

PARAFLEX membranes are designed for waterproofing applications of all kinds. In particular, PARAFLEX membranes are ideal for use in cold climates or during cold weather. For membrane versions to be used in roofing, foundation and belowgrade applications, see the table below⁽¹⁾.

For detailed documentation and guidance regarding product application, consult IMPER ITALIA srl 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				
	Single-ply	Multi-play		Root resistant	Single-ply	Multi-play			Multi-play
Cap sheet		Base ply							
PARAFLEX W3			•			•			
PARAFLEX W4			•			•			
PARAFLEX NT3			•			•			•
PARAFLEX NT4			•		•	•			•
PARAFLEX ARD/S		•				•			
PARAFLEX ARD/HS	•	•				•			

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

Methods of application

PARAFLEX membranes are designed for easy torch application after priming, except for polyester-reinforced versions, which are secured using mechanical means. Waterproofing performance will depend to a significant extent on application methods. 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, PARAFLEX 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 srl 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⁾	PARAFLEX					
				W3	W4	NT3	NT4	ARD/S ⁽²⁾	ARD/HS ⁽²⁾
Roll dimensions	1848-1	m	≥	10 x 1 (-1%)					
Thickness	1849-1	mm	±5%	3	4	3	4	-	4
Mass	1849-1	kg/m ²	±10%	-	-	-	-	4.5	-
Watertightness	1928-B	kPa	≥	60					
Cold flexibility	1109	°C	≤	-25					
Hot creep	1110	°C	≥	100					
Tensile strength (L/T)	12311-1	N/5cm	±20%	300/200	300/200	800/600	800/600	800/600	800/600
Tensile elongation (L/T)	12311-1	%	±15 ⁽³⁾	2/2	2/2	50/50	50/50	50/50	50/50
Dimensional stability (L/T)	1107-1	%	²	-	-	0.3	0.3	0.3	0.3
Puncture resistance - Static indentation	12730	kg	≥	NPD ⁽⁴⁾	NPD ⁽⁴⁾	NPD ⁽⁴⁾	25	NPD ⁽⁴⁾	25
Puncture resistance - Dynamic indentation	12691-B	mm	≥	NPD ⁽⁴⁾	NPD ⁽⁴⁾	NPD ⁽⁴⁾	1250	NPD ⁽⁴⁾	1250
Tear resistance (L/T)	12310-1	N	±30%	NPD ⁽⁴⁾	NPD ⁽⁴⁾	150	150	150	150
Joint peel resistance	12316-1	N/5cm	±20 N	NPD ⁽⁴⁾	NPD ⁽⁴⁾	NPD ⁽⁴⁾	200	NPD ⁽⁴⁾	200
Joint cut resistance	12317-1	N/5cm	±20%	NPD ⁽⁴⁾	NPD ⁽⁴⁾	NPD ⁽⁴⁾	RFG ⁽⁵⁾	NPD ⁽⁴⁾	RFG ⁽⁵⁾
Durability after aging:									
• Cold flexibility	1296-1109	°C	+15°C	-10					
• Hot creep	1296-1110	°C	-10°C	+100					
• UV weathering exposure	1297	-	-	NPD ⁽⁴⁾					
• Watertightness	1296-1928	kPa	≥	60					
• Chemical resistance	-	-	-	NPD ⁽⁴⁾					
• Tensile strength (L/T)	12311-1	N/5cm	±20%	-	-	700/500	700/500	700/500	700/500
• Tensile elongation (L/T)	12311-1	%	±15 ⁽³⁾	-	-	45/45	45/45	45/45	45/45
Water vapor permeability	1931	μ	≥	20,000					
Root resistance	13948		-	NPD ⁽⁴⁾					
Fire resistance	13501-5	EC ⁽⁶⁾	-	F Roof					
Fire reaction rating	13501-1	EC ⁽⁶⁾	-	F					

Notes: (1) In compliance with applicable standards and AISPEC-SITEB-MBP guidelines. (4) Not determined, because not relevant for application.
 (2) Standard upper face color: natural slate gray. Also available in red and green. (5) RFG: Failure away from joints or ≥500.
 (3) ±2 for glass tissue reinforcement. (6) Euroclass.

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