



PARALON^{PLUS}

Product description

Prefabricated waterproofing membranes for applications requiring excellent mechanical strength. PARALON^{PLUS} membranes are produced from PARALLOY[®] compound, which consists of metallocene based resins of selected molecular weight dispersed in bitumen, and is co-extruded with a non-woven continuous filament or stabilized polyester fiber reinforcing mat. PARALON^{PLUS} membranes are available in versions with a talc-treated upper face (ARD/S) or with the upper face surfaced with slate chippings (ARD/HS). Faces may also be treated with the proprietary TEXTENE[®] finish, a special preformed textured polymer fiber film which enhances the product, improving durability and appearance. Specified instead of the standard talc treatment, the optional TEXTENE[®] finish ensures that membranes are cleaner to work with and can be more readily overcoated: with the TEXTENE[®] finish, protective treatments adhere better and are more easily applied, increasing the service life of both the membrane and the protective coating. The lower face is coated with TERMOTENE film, which facilitates application. PARALON^{PLUS} membranes are supplied in strapped rolls, each accompanied by a Quality Control Certificate, and are covered by European Technical Approval certification (formerly ICITE Agrément certification). They comply with CE marking requirements where applicable, and contain no asbestos, tar or other dangerous substances.

The Pluses provided by PARALON^{PLUS}

Cold flexibility. Expresses the product’s ability to stay flexible at low temperatures: down to -20°C for PARALON^{PLUS} membranes.

Weathering resistance. The ability to maintain original performance levels over time. It is expressed as the loss of cold flexibility after accelerated aging in a forced-draft environmental chamber at 70°C for 180 hours: PARALON^{PLUS} membranes are still flexible at -15°C.

Shape stability at high temperatures. A parameter expressed as the temperature at which the product retains its shape and consistency, with no flow, creep or dripping: 140°C for PARALON^{PLUS} membranes.

Ultimate elongation. A quality indicator that expresses the compound’s toughness, as well as its ability to follow any movements caused by shifting substrates: ≥400% for the PARALLOY[®] compound.

Marking. The origin and authenticity of all products in the PARALON range are guaranteed by an identification marking on the talc treated surface. Marking is applied either on the selvage or along lengthwise edges.

Recommended uses

PARALON^{PLUS} membranes are ideal for waterproofing applications of all kinds. In particular, they are designed to provide high-performance waterproofing protection. 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-play
	Single-ply	Built-up		Root resistant	Single-ply	Multi-play			
Cap sheet		Base ply							
PARALON NT 3 ^{PLUS}			•			•			•
PARALON NT 4 ^{PLUS}	•	•	•	•	•	•			•
PARALON ARD/S ^{PLUS}	•						•		
PARALON ARD/HS ^{PLUS}	•						•		

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

SPECIFICATIONS⁽¹⁾

Properties	EN standards	Unit of measure	Tolerances ⁽¹⁾	PARALON ^{PLUS}			
				NT 3 ^{PLUS}	NT 4 ^{PLUS}	ARD/S ^{PLUS(2)}	ARD/HS ^{PLUS(2)}
Roll dimensions	1848-1	m	≥	10 × 1 (-1%)			
Thickness	1849-1	mm	±5 %	3	4		4 + ARD
Mass	1849-1	kg/m ²	±10 %	-	-	4.5	-
Watertightness	1928-B	kPa	≥	60			
Cold flexibility	1109	°C	≤	-20			
Hot creep	1110	°C	≥	140			
Tensile strength, L/T	12311-1	N/5cm	±20%	750/650			
Tensile elongation, L/T	12311-1	%	±15	50/50			
Dimensional stability, L/T	1107-1	%	≤	0.5			
Puncture resistance Static indentation	12730	kg	≥	-	25	-	25
Puncture resistance Dynamic indentation	12691-B	mm	≥	-	1000	-	1000
Tear resistance, L/T	12310-1	N	±30%	160/180			
Joint peel resistance	12316-1	N/5cm	±20 N	60			
Joint cut resistance	12317-1	N/5cm	±20%	650/550 ⁽⁴⁾			
Durability after aging: - Cold flexibility	1296-1109	°C	+15°C	-15			
- Hot creep	1296-1110	°C	-10°C	+130			
- UV weathering exposure	1297	-	-	-	Passes test	-	-
- Watertightness	1296-1928	kPa	≥	60			
- Chemical resistance	1847-1928	-	-	NPD ⁽³⁾			
- Tensile strength, L/T	1296-1297	N/5cm	±20%	-	-	750/650	750/650
- Tensile elongation, L/T	12311-1	%	±15	-	-	50/50	50/50
Water vapor permeability	1931	μ	≥	20.000			
Root resistance	LG Aispec		-	NPD ⁽³⁾			
Fire resistance	13501-5	EC ⁽⁵⁾	-	F Roof			
Fire reaction rating	13501-1	EC ⁽⁵⁾	-	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⁾ Not determined, because not relevant for application.

⁽⁴⁾ Or failure away from joints.

⁽⁵⁾ Euroclass.

Methods of application

PARALON^{PLUS} membranes are designed for easy torch application, or are secured using mechanical means. Waterproofing performance will depend to a significant extent on application methods. Substrates must be thoroughly cleaned and treated with a suitable primer applied by brush, roller or spray at a rate of 0.2 to 0.3 liters/m². Primer coverage will depend on substrate porosity. PARALON^{PLUS} 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. 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.

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