

**PARALON<sup>PLUS</sup> ST**



**Nature of product**

Prefabricated membranes for waterproofing that require high mechanical strength. They are obtained by coextrusion of the PARALLOY® compound based on metallocene resins with selected molecular weight dispersed in bitumen, and a continuous filament polyester “non-woven” reinforcement, with controlled dimensional stability with mineral fibers positioned longitudinally. PARALON<sup>PLUS</sup> ST membranes are available in the black, talc (thickness 3 and 4 mm) and self-protected versions with slate flakes (ARD /S<sup>PLUS</sup> ST of 4.5 kg / m<sup>2</sup> and ARD/HS<sup>PLUS</sup> ST of 4 mm + slates). In place of the talc finish, the black membranes can also be supplied in the version with TEXTENE® finish, consisting of a layer of preformed textured polymer fibers in film, which gives the finished product a high added value by improving its durability and aesthetic appearance. The TEXTENE® finishing treatment, replacing the normal talc finish, allows greater cleaning during the installation operations and improves the application and adherence of the protective treatments of waterproofing membranes, increasing the duration of both the painting and the membranes raincoats themselves. The lower surface is normally coated with TERMOTENE film, which facilitates application and improves the adhesion of the membrane to the substrate. PARALON<sup>PLUS</sup> ST membranes, already equipped with the Certificate of Technical Suitability issued by ITC on the basis of the European Directives UEAtc (Union Européenne pour l'Agreement Technique dans la Construction), are also certified with the equivalent Agrément Technique obtained from other UEAtc member institutes, such as in particular the CSTB in France, the UBAtc in Belgium, the BBA in England, as well as with other quality certificates issued by other prestigious control bodies in various countries around the world. In the specific anti-root version they are also expressly certified according to current legislation. They are produced in rolls, taped and accompanied by a Quality Control coupon. They comply with the requirements for CE marking where applicable. They do not contain asbestos, tar, or other dangerous substances.

**Features**

- **Cold flexibility.** It expresses the product’s potential to maintain its elasticity at low temperatures: -20 °C for PARALON<sup>PLUS</sup> ST membranes.
- **Resistance to aging.** It is the ability to maintain initial performance over time. It is expressed as a degradation, compared to the new one, of the cold flexibility value after accelerated aging in a ventilated stove at + 70 °C for 180 days: -15 °C for the PARALON<sup>PLUS</sup> ST membranes.
- **Hot shape stability.** It is a parameter expressed as the temperature at which the product maintains its consistency and shape unaltered, without giving rise to sliding or dripping phenomena: + 140 °C for PARALON<sup>PLUS</sup> ST membranes.
- **Elongation at break of the compound.** It is a general quality index that expresses the toughness of the compound, as well as its ability to follow any movements of the substrate: ≥400% for the PARALLOY® compound.
- **Stabilized armor.** It allows you to control the dimensional stability of the membrane, thereby making it possible to install it in a single layer, according to the new European Directives of the UEAtc.
- **Marking.** The origin and authenticity of the products of the PARALON range are guaranteed by a special marking on the talc surface, or on the lateral selvedge, or along the longitudinal edges.

**Intended use**

The PARALON<sup>PLUS</sup> membranes are specifically used to create waterproofing works in general. Moreover, compared to the use on roofs and in foundations, the different versions can be used with reference to the following diagram <sup>(1)</sup>. For clarification on the systems that can be obtained, consult the Technical Services of IMPER ITALIA srl.

PRODUCTS	FIELDS OF USE <sup>(1)</sup>								
	Roofing (EN 13707)						Under-tile (EN 13859-1)	Steam control (EN 13970)	Foundations (EN 13969)
	Exposed			Roof gardens	Under heavy-duty protection				
	Single-ply	Multi-ply		Root-resistant	Single-ply	Multi-ply			Multi-ply
Upper		Lower							
PARALON <sup>PLUS</sup> ST 3 mm			•			•			•
PARALON <sup>PLUS</sup> ST 4 mm	•	•	•		•	•			•
PARALON ARD/S <sup>PLUS</sup> ST		•					•		
PARALON ARD/HS <sup>PLUS</sup> ST	•	•					•		

## Application procedure

The application methods are a determining factor capable of characterising the performance of the waterproof covering itself. In general terms, we remind you to carry out careful preparation and cleaning of the substrate followed by the priming treatment with a suitable primer (applied with a long-handled brush, roller, spray), with a consumption of  $0.2 \div 0.3 \text{ l/m}^2$  and in any case variable with the degree of porosity of the substrate itself. The membrane will be applied with the aid of a propane gas torch; particular care must be given to performing of sealing between the sheets always laid with staggered joints: the lateral joints must be installed with overlap of  $8 \div 10 \text{ cm}$  and the end joints with overlapping of  $12 \div 15 \text{ cm}$ . For correct and detailed documentation, as well as to identify the most effective intervention solutions in all circumstances, we recommend consulting the Technical Services of IMPER ITALIA srl which are in any case available for the consultation of particular problems as well as to provide all the assistance necessary for the best use of these materials.

### TECHNICAL SPECIFICATIONS

Specifications	EN Standards	Unit of Measure	Tolerances <sup>(2)</sup>	PARALON PLUS ST			
				3 MM	4 MM	ARD/S <sup>(3)</sup>	ARD/HS <sup>(3)</sup>
Roll dimensions	1848-1	m	≥	10 x 1 (-1%)			
Thickness	1849-1	mm	±5%	3	4	-	4 + slates
Mass per unit area	1849-1	kg/m <sup>2</sup>	±10%	-	-	4,5	-
Watertightness	1928-B	kPa	≥	60			
Cold flexibility	1109	°C	≤	-20			
Flow resistance at elevated temperature	1110	°C	≥	140			
L/T tensile strength	12311-1	N/5cm	±20%	750 / 650			
L/T tensile elongation	12311-1	%	±15	50 / 50			
L/T dimensional stability	1107-1	%	≤	0.3			
Static puncture	12730/B	kg	≥	25			
Dynamic puncture	12691-B	mm	≥	1000			
L/T tear resistance	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 <sup>(4)</sup>			
<b>Durability after aging:</b>							
• Cold flexibility	1296-1109	°C	+15°C	-15			
• Flow resistance at elevated temperature	1296-1110	°C	-10°C	130			
• UV Ageing	1297	-	-	Passes the test			
• Watertightness	1296-1928	kPa	≥	60			
• Chemical resistance	-	-	-	NPD <sup>(5)</sup>			
• L/T tensile strength	12311-1	N/5cm	±20%	600 / 550			
• L/T tensile elongation	12311-1	%	±15	45 / 45			
Steam permeability	1931	μ	≥	20,000			
External fire behaviour	13501-5	EC <sup>(6)</sup>	-	Froof			
Fire reaction	13501-1	EC <sup>(6)</sup>	-	E <sup>(7)</sup>			
Solar Reflectance Index (SRI)	ASTM Standard	%	-	81 <sup>(8)</sup>			

- Notes:** (2) In compliance with the applicable AISPEC/SITEB-MBP Guidelines. (5) Characteristic not determined because it is not relevant for use.  
 (3) Standard color: natural grey. Other colors upon request (6) Euroclass.  
 (4) Declared value or off-joint breakage. (7) Internal Report.  
 (8) Only Reflecta White version, in heavy wind conditions

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