

PARALON Series

HIGH PERFORMANCE
CERTIFIED
WATERPROOFING MEMBRANES



Water



“watertightness”



... and no water penetrates

Series PARALON

The Agrément certificates by the UEAtc Instituts confirm the outstanding technical merits that have made **PARALON** a byword for reliable performance and durability for over 25 years. Certifications have been extended to the entire **PARALON** range of products designed to meet the most widely varying design and application needs, and cover both talc-treated and slate surfaced membranes, as well as those featuring the innovative **TEXTENE®** finish.



▶ The first Agrément certificate issued for an entire product series: the PARALON range rather than a single product.



▶ The first Agrément certificate covering fire resistant roofing products.



▶ The first Agrément certificate covering products with different types of reinforcement: classic continuous filament polyester fabric, stabilized continuous filament polyester fabric, and composite.



▶ The first Agrément certificate covering both 3 mm and 4 mm thick versions.

PRODUCT 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 along the selvedge of the mineralized membrane.





PRODUCT HISTORY

PARALON series membranes are the newest development in the tradition that started with **PARALON NT4**, which in 1978 was the first Italian waterproofing membrane to receive Agrément certification from the ICITE, now known as ITC – the Italian National Research Council’s Institute of Construction Technologies. The ITC Agrément certification is recognized in all major countries participating in the UEAtc (Union Européenne pour l’Agrément

Technique dans la Construction). **PARALON** membrane is also certified by major approval bodies around the world, where over 60,000,000 square meters have been installed. As a result of product advances, new application requirements and the changing European regulatory scene, the **PARALON** range has been expanded to include new products featuring stabilized reinforcements and fire resistant compounds.

THE PARALON RANGE

The new **PARALON** range features two product groups: **PARALON^{PLUS}** and **PARALON FIRE**.

PARALON^{PLUS}

PARALON NT4^{PLUS}

Elasto-plastomeric bitumen polymer membrane with non-woven continuous filament polyester fabric reinforcement.

Thickness: 4 mm

Cold flexibility: -20 °C

Optional TEXTENE® finish on upper face may be specified instead of standard talc treatment.

PARALON NT4^{PLUS} ST

Elasto-plastomeric bitumen polymer membrane with non-woven continuous filament polyester fabric reinforcement stabilized with glass fibre.

Thickness: 4 mm

Cold flexibility: -20 °C

Optional TEXTENE® finish on upper face may be specified instead of standard talc treatment.

PARALON NT3^{PLUS}

Elasto-plastomeric bitumen polymer membrane with non-woven continuous filament polyester fabric reinforcement.

Thickness: 3 mm

Cold flexibility: -20 °C

Optional TEXTENE® finish on upper face may be specified instead of standard talc treatment.

PARALON ARD/HS^{PLUS}

Elasto-plastomeric bitumen polymer membrane with non-woven continuous filament polyester fabric reinforcement. Upper face surfaced with slate chippings. Available in red, green and natural slate grey.

Thickness: 4 mm (Plus slate chippings)

Cold flexibility: -20 °C

PARALON ARD/S^{PLUS}

Elasto-plastomeric bitumen polymer membrane with non-woven continuous filament polyester fabric reinforcement. Upper face surfaced with slate chippings. Available in red, green and natural slate grey.

Mass: 4.5 kg/m²

Cold flexibility: -20 °C

PARALON ARD/HS^{PLUS} ST

Elasto-plastomeric bitumen polymer membrane with non-woven continuous filament polyester fabric reinforcement stabilized with glass fibre. Upper face surfaced with slate chippings. Available in red, green and natural slate grey.

Thickness: 4 mm (Plus slate chippings)

Cold flexibility: -20 °C

PARALON^{PLUS} ST FIRE

PARALON NT3^{PLUS} ST FIRE

Elasto-plastomeric bitumen polymer membrane with non-woven continuous filament polyester fabric reinforcement. Fire resistant compound.

Thickness: 3 mm

Cold flexibility: -15 °C

PARALON NT4^{PLUS} ST FIRE

Elasto-plastomeric bitumen polymer membrane with non-woven continuous filament polyester fabric reinforcement. Fire resistant compound.

Thickness: 4 mm

Cold flexibility: -15 °C

PARALON ARD/S^{PLUS} ST FIRE

Elasto-plastomeric bitumen polymer membrane with non-woven continuous filament polyester fabric reinforcement. Upper face surfaced with slate chippings. Available in red, green and natural slate grey. Fire resistant compound.

Mass: 4.5 kg/m²

Cold flexibility: -15 °C

PARALON ARD/HS^{PLUS} ST FIRE

Elasto-plastomeric bitumen polymer membrane with non-woven continuous filament polyester fabric reinforcement. Upper face surfaced with slate chippings. Available in red, green and natural slate grey. Fire resistant compound.

Thickness: 4 mm (Plus slate chippings)

Cold flexibility: -15 °C

METHODS OF APPLICATION

Waterproofing performance will depend to a significant extent on application methods.

In this connection, note that membrane must be laid to allow side laps of 8 to 10 cm and end laps of 12 to 15 cm. On pitched roofs, sheets must be cut no larger than 5 x 1 meters.

Propane torches must be used with care, as excess heat can damage the compound and/or reinforcement.

For detailed documentation and guidance in selecting the most appropriate procedures for any job, consult our technical document "Waterproofing Membranes: General Application Instructions" contained in the Imper Web Site Stratigraphy, the Technical Services will be happy to provide assistance and advice in designing special waterproofing systems and helping you make the best use of these materials.



RECOMMENDED USES

The PARALON membranes are in conformity with the CE marking where necessary. They are free from asbestos, coaltar and other hazardous constituents.

PARALON^{PLUS}

PARALON^{PLUS} membranes are ideal for single-ply installations (ST version) and are designed to provide dependable waterproofing protection for:

- All kinds of roofing.
- Below-ground structures and foundations, including those in earthquake-prone areas.
- Flat insulated roofs with waterproofing base ply, roofing requiring heavy-duty protection, roofing exposed to standing water.
- Planters, roof gardens and parking decks.
- Earth and concrete reservoirs, canals, waterworks.
- Highway and railway bridges, viaducts, overpasses, etc.
- Blind sides of tunnels.

- Demanding applications where the membrane must be mechanically retained or supported, and all applications involving shifting substrates or concentrated loads.

To satisfy special appearance requirements and ensure greater environmental resistance, **PARALON NT 4^{PLUS}**, **PARALON NT 4^{PLUS} ST**, and **PARALON NT 3^{PLUS}** membranes can be overcoated with **ELASTOMUL** series paints (available in a range of colours), or treated with **PARWENOL 4822 Aluminum** or **ALLABIT 822 Aluminum** metallizing paints. Upper faces of **PARALON ARD/S^{PLUS}**, **PARALON ARD/HS^{PLUS}** and **PARALON ARD/HS^{PLUS} ST** membranes are surfaced with slate chippings available in red, green and natural slate grey. These membranes may also be supplied in non-standard colours (*quantity and tint requirements permitting*).



PARALON^{PLUS} ST FIRE *fire*

The **PARALON ARD/HS^{PLUS} ST FIRE** membrane is classified as **Roof (t2)** as per UNI EN 13501-5 on both combustible and non-combustible substrates, and can thus be used for flat or sloping roofs with any type of insulation (density ≥ 16 kg/m³), as well as on wooden or metal substrates and concrete and/or bitumen surfaces.



THE COMPOUND THAT MAKES THE DIFFERENCE

PARALLOY®

Combines all the advantages of SBS and APP compounds.

PARALON membranes are produced from a special compound called **PARALLOY®**, which consists of metallocene based resins of selected molecular weight dispersed in bitumen, and is co-extruded with a non-woven continuous filament polyester fibre reinforcement. In certain products, the reinforcement is stabilized with glass fibre. The lower face is protected by "**TERMOTENE®**" hot-melt film, which facilitates application and improves membrane adhesion to the substrate to be waterproofed.

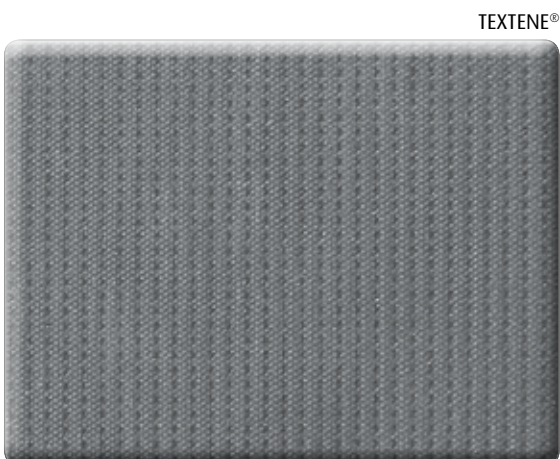
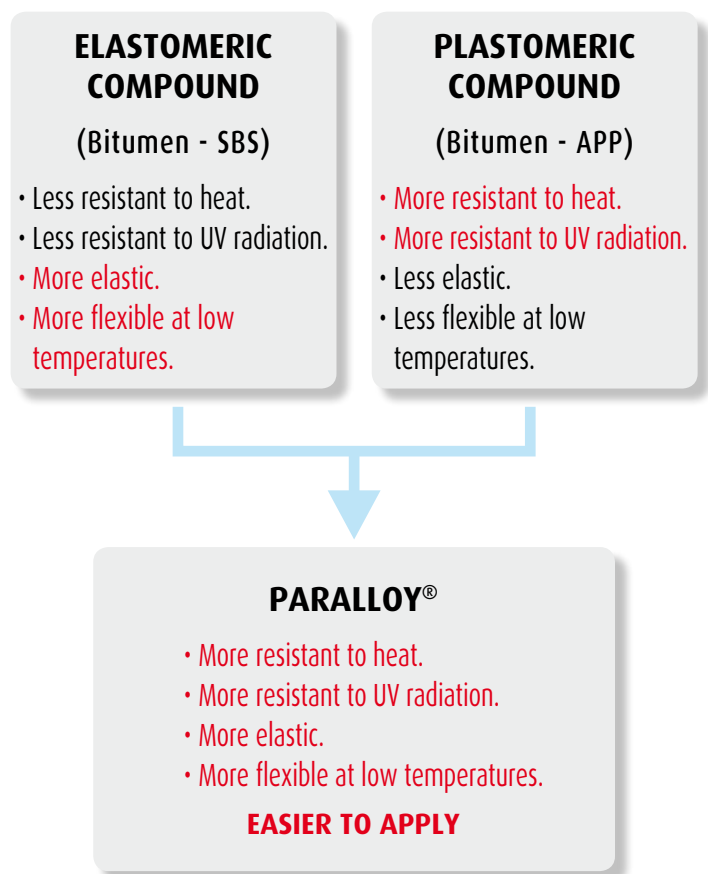
TEXTENE® FINISH

Non-slate surfaced versions of **PARALON^{PLUS} Series** products can be supplied with upper faces either treated with talc or with the proprietary **TEXTENE®** finish, which substantially improves membrane performance.

The **TEXTENE®** finish is produced using a special process in which the membrane surface is coated with a layer of textured polymer fibre.

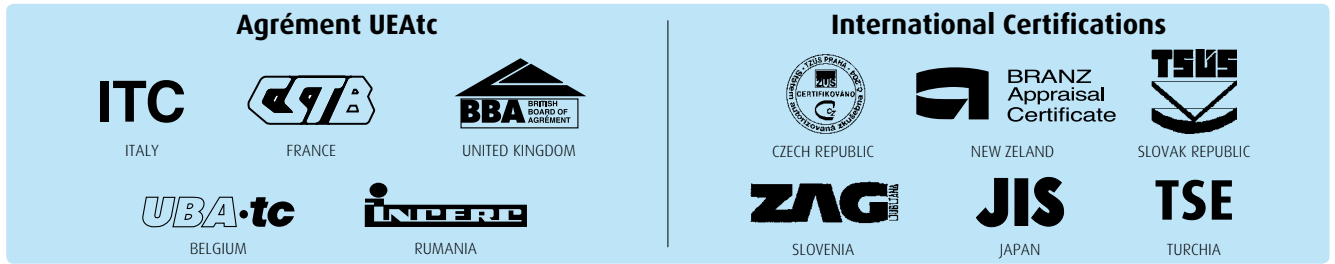
The **TEXTENE®** treatment improves:

- **Appearance:**
TEXTENE® gives the membrane a velvety smooth surface.
- **Environmental impact:**
As they are talc-free, **TEXTENE®** treated membranes are cleaner to work with and release less dust into the environment.
- **Performance benefits:**
The **TEXTENE®** treatment improves membrane performance, particularly as regards waterproofing durability, ease of torch application, sheet strength and tear resistance, ability to bear foot traffic during installation and paintability.



CERTIFICATION

Regular checks carried out by **UEAtc member bodies** on products with Agrément Certification, approval by international institutes, and the stringent controls implemented by the **IMPER Division's ISO 9001** – certified quality management and assurance system ensure that **PARALON** membranes combine outstanding appearance with unbeatable performance while guaranteeing long-lasting dependability.



PARALON^{PLUS}

DATA SHEET ⁽¹⁾

Specifications	EN Norms	Units	T ⁽¹⁾	PARALON ^{PLUS}				PARALON ^{PLUS} ST	
				NT 3 ^{PLUS}	NT 4 ^{PLUS}	ARD/S ^{PLUS} ⁽²⁾	ARD/HS ^{PLUS} ⁽²⁾	NT 4 ^{PLUS} ST	ARD/HS ^{PLUS} ST ⁽²⁾
Roll size	1848-1	m	≥	10 × 1 (-1%)					
Thickness	1849-1	mm	±5%	3	4	-	4 + slate	4	4 + slate
Mass per unit area	1849-1	kg/m ²	±10%	-		4.5	-		
Watertightnes	1928-B	kPa	≥	60					
Flexibility at low temperature	1109	°C	≤	-20					
Flow resistance at elevated temperature	1110	°C	≥	140					
Tensile properties: max tensile force	12311-1	N/5 cm	±20%	750/650					
Tensile properties: elongation	12311-1	%	±15	50/50					
Dimensional stability	1107-1	%	≤	0.5				0.3	
Resistance to static loading	12730-B	kg	≥	25					
Resistance to impact	12691-B	mm	≥	1000					
Resistance to tearing (nail shank)	12310-1	N	±30%	160/180					
Peel resistance of the joint	12316-1	N/5 cm	±20 N	60					
Shear resistance of the joint	12317-1	N/5 cm	±20%	RFG ⁽³⁾ o ≥ 500					
Artificial ageing:									
• Flexibility at low temperature	1296-1109	°C	+15 °C	-15					
• Flow resistance at elevated temperature	1296-1110	°C	-10 °C	+130					
• UV resistance	1297	-	-	Pass					
• Watertightnes	1296-1928	kPa	≥	60					
• Chemical resistance	1847-1928	-	-	NPD ⁽⁴⁾					
• Tensile properties: max tensile force	1296-1297	N/5 cm	±20%	750/650					
• Tensile properties: elongation	12311-1	%	±15	50/50					
Water vapour transmission properties	1931	μ	≥	20,000					
Resistance to root penetration	LG Aispec	-	-	NPD ⁽⁴⁾					
External fire exposure	13501-5	EC ⁽⁵⁾	-	Froof					
Reaction to fire	13501-1	EC ⁽⁵⁾	-	F					

⁽¹⁾ In conformity with the applicable norms and the Guide Lines AISPEC-SITEB-PBM.

⁽²⁾ Also available in green and red. Slate colours may vary according to chip orientation or as a result of normal shading tolerances.

⁽³⁾ Break outside of the joint.

⁽⁴⁾ "No Performance Determinated" as not relevant for intended use.

⁽⁵⁾ European Classification.

MEMBRANES

INTENDED USE ⁽¹⁾

	Roofs (EN 13707)						Under tiles (EN 13859.1)	Water vapour control layer (EN 13970)	Foundations (EN 13969)
	Exposed		Roof garden	Under heavy protection		Multi layer			
	Single layer	Multi layer		Anti roots	Single layer				
PARALON NT 3 ^{PLUS}		•			•			•	
PARALON NT 4 ^{PLUS}	•	•	•	•	•			•	
PARALON ARD/S ^{PLUS}		•				•			
PARALON ARD/HS ^{PLUS}		•				•			
PARALON NT 4 ^{PLUS} ST	•	•	•	•	•			•	
PARALON ARD/HS ^{PLUS} ST	•	•				•			

⁽¹⁾ In conformity with the applicable norms and the Guide Lines AISPEC-SITEB-PBM.

DATA SHEET ⁽¹⁾

Specifications	EN Norms	Units	T ⁽¹⁾	PARALON ^{PLUS} ST FIRE	
				NT 4 ^{PLUS} ST FIRE	ARD/HS ^{PLUS} ST FIRE ⁽²⁾
Roll size	1848-1	m	≥	10 × 1 (-1%)	
Thickness	1849-1	mm	±5%	4	4 + ARD
Mass per unit area	1849-1	kg/m ²	±10%	-	-
Watertightnes	1928-B	kPa	≥	60	
Flexibility at low temperature	1109	°C	≤	-15	
Flow resistance at elevated temperature	1110	°C	≥	140	
Tensile properties: max tensile force	12311-1	N/5 cm	±20%	750/650	
Tensile properties: elongation	12311-1	%	±15	50/50	
Dimensional stability	1107-1	%	≤	0.3	
Resistance to static loading	12730-B	kg	≥	25	
Resistance to impact	12691-B	mm	≥	1000	
Resistance to tearing (nail shank)	12310-1	N	±30%	160/180	
Peel resistance of the joint	12316-1	N/5 cm	±20 N	60	
Shear resistance of the joint	12317-1	N/5 cm	±20%	RFG ⁽³⁾ o ≥ 500	
Artificial ageing:					
• Flexibility at low temperature	1296-1109	°C	+15 °C	-10	
• Flow resistance at elevated temperature	1296-1110	°C	-10 °C	+130	
• UV resistance	1297	-	-	Pass	
• Watertightnes	1296-1928	kPa	≥	60	
• Chemical resistance	-	-	-	NPD ⁽⁴⁾	
• Tensile properties: max tensile force	12311-1	N/5 cm	±20%	650/550	
• Tensile properties: elongation	12311-1	%	±15	45/45	
Water vapour transmission properties	1931	μ	≥	20,000	
Resistance to root penetration	LG Aispec	-	-	NPD ⁽⁴⁾	
External fire exposure	13501-5	EC ⁽⁵⁾	-	B Roof (t1, t2)	
Reaction to fire	13501-1	EC ⁽⁵⁾	-	E ⁽⁶⁾	

⁽¹⁾ In conformity with the applicable norms and the Guide Lines AISPEC-SITEB-PBM.

⁽²⁾ Also available in green and red. Slate colours may vary according to chip orientation or as a result of normal shading tolerances.

⁽³⁾ Break outside of the joint.

⁽⁴⁾ "No Performance Determinated" as not relevant for intended use.

⁽⁵⁾ European Classification.

⁽⁶⁾ Internal Report.

MEMBRANES

INTENDED USE ⁽¹⁾

	Roofs (EN 13707)					Under tiles (EN 13859.1)	Water vapour control layer (EN 13970)	Foundations (EN 13969)	
	Exposed		Roof garden	Under heavy protection					Multi layer
	Single layer	Multi layer		Anti roots	Single layer				
	Top	Intermediate							
PARALON NT 3 ^{PLUS} FIRE		•			•			•	
PARALON NT 4 ^{PLUS} FIRE	•	•			•			•	
PARALON ARD/S ^{PLUS} FIRE	•					•			
PARALON ARD/HS ^{PLUS} FIRE	•					•			

⁽¹⁾ In conformity with the applicable norms and the Guide Lines AISPEC-SITEB-PBM.



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