TECHNICAL DATASHEET

PARALON COLD SYSTEM

Nature of product

The PARALON COLD SYSTEM is an innovative "cold" waterproofing system, consisting of the special PARALON COLD (4 mm) and PARALON COLD HP (5 mm) membranes, glued to the laying surface using the specific ADITHENE adhesive. PARALON COLD waterproofing membranes are manufactured by coextrusion of a particular compound with exclusive PARALLOY derivation formulation, based on metallocene resins with selected molecular weight dispersed in bitumen, and of a composite reinforcement (consisting of high performance “non-woven” continuous filament polyester, coupled to a reinforcement layer in glass fibres, with high dimensional stability). The PARALON COLD HP membrane is also created with high mechanical resistances that make it particularly suitable for waterproofing under heavy protection and for especially heavy operating conditions. Available on request, for the 4 mm membrane, the PARALON COLD FIRE (talc treated) and the PARALON COLD ARD FIRE (slate) versions, suitably mixed with pyrogen-free non-toxic substances (class E / BROOF(t2), and for the 5 mm membrane the PARALON COLD HP AR version (talc treated, Root-resistant). The lower side of the different versions (except the PARALON COLD ARD FIRE) is always coated with the TEXTENE® treatment, consisting of a layer of textured polymer fibres, preformed in film, which replaces the normal finishes with talc or plastic film, offering better adhesion both on the laying surface and between the joints of the sheets, and therefore a higher reliability of the waterproof seal. The upper side is treated with classic talcuming. The PARALON membranes, accompanied now for approximately 30 years with the certification of technical suitability of the ICITE, today ITC (the first in Italy to obtain this certification, in 1978), are also provided with numerous certifications and Technical Agréments issued by the most prestigious control Institutes in Europe (UEAtc) and in the world. They are packaged in rolls with plastic strips and accompanied by a Quality Control Certificate. They comply with the requirements for CE marking, where required; they do not contain asbestos, tar or other dangerous substances. The ADITHENE adhesive, based on bitumen, elastomers, resins and special adhesives, ensures total and lasting adhesion of the membranes on the surface to be waterproofed. It is supplied in tins of various sizes.

Fields of use

The PARALON COLD and PARALON COLD HP membranes are typically used in laying solutions with "cold" gluing, to the creation of single-ply waterproofing systems for flat roofs. The PARALON COLD HP membrane was mainly designed for single-ply waterproofing of trafficked routes, foundations, underground structures, parking roofs, gardens (for the latter in the AR version), etc. for which it is appropriate to use a membrane with increased thickness. For the "cold" bonding of the membranes (on compatible laying surfaces), the specific ADITHENE adhesive is used. PARALON COLD membranes can also be installed by flame application. This form of installation is preferred on slopes of over 15%. The joints, even in the case of bonding with ADITHENE, are always welded by flame or hot air. Naturally, the PARALON COLD membranes can also be used for the creation of multilayer waterproofing systems, which can be traditionally applied by flame.

Intended use

Moreover, compared to the use on roofs and in foundations, the different versions can be used with reference to the following diagram[(1)].
For clarification on the systems that can be created, consult the Technical Services of IMPER ITALIA srl.

PRODUCTS	FIELDS OF USE (1)							
	Roofing (EN 13707)						Underlay (EN 13859-1)	
	Exposed			Roof gardens	Under heavy-duty protection			
	Single-ply	Multi-ply		Root-resistant	Single-ply	Multi-ply		
		Upper	Lower					
PARALON COLD 4 mm	•	•	•		•	•		•
PARALON COLD FIRE 4 mm	•	•						
PARALON COLD ARD FIRE 4 mm	•	•						
PARALON COLD HP 5 mm	•	•	•		•	•		•
PARALON COLD HP AR 5 mm				•	•	•		•

(1) In compliance with the applicable AISPEC/SITEB-MBP Guidelines.

Application procedure

The application methods are a determining factor capable of characterising the performance of the waterproof covering. In general terms, remember to carry out careful preparation and cleaning of the substrate, possibly followed (in the case of particularly dusty surfaces) by the priming treatment with IMPERTENE PRIMER (applied with a long-handled brush, roller, spray), in the ratio of 0.2 ÷ 0.3 l/m² variable with the degree of porosity of the substrate itself. PARALON COLD membranes are applied by cold gluing using the specific ADITHENE adhesive; traditional flame application is also possible, especially on slopes of more than 15%. The sheets must first be laid on the surface already treated with the primer and aligned on the area to be covered, with the planned overlaps between adjacent sheets, both lateral (10 cm) and at the end (15 cm). In the gluing mode, the sheets thus positioned are then folded longitudinally on themselves for half of their width (or rewound from both ends towards the centre) to uncover the corresponding part of the laying plane on which to spread the adhesive (approximately 1 kg/m²). Once the adhesive has been applied, it is overturned above the longitudinal half of the previously folded sheet (or the corresponding first half is overturned). The same operations are repeated for gluing of the other half of the sheet, and the lateral joints are sealed by a flame process or by a suitable hot air dispenser. The vertical overlaps are treated with membrane portions that are independent of the horizontal surfaces. 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, available to examine particular problems as well as to provide all the necessary assistance for optimum use of these materials.

TECHNICAL SPECIFICATIONS (1)

Specifications	EN Standards	Unit of Measure	Tolerances (1)	PARALON COLD SYSTEM				
				PARALON COLD	PARALON COLD FIRE	PARALON COLD ARD FIRE	PARALON COLD HP	PARALON COLD HP AR
Roll dimensions	1848-1	m	≥	1 x 10 (-1%)				
Thickness	1849-1	mm	±5%	4		4 + slate	5	
Mass per unit area	1849-1	kg/m²	±10%	-				
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			1250 / 1200	
L/T tensile elongation	12311-1	%	±15	50 / 50				
L/T dimensional stability	1107-1	%	≤	0.1 / 0.1				
Static puncture	12730-B	kg	≥	25			35	
Dynamic puncture	12691-B/06	mm	≥	1100			2300	
L/T tear resistance	12310-1	N	±30%	200 / 200			250 / 250	
Joint peel resistance	12316-1	N/5cm	±20	60				
Joint cut resistance	12317-1	N/5cm	±20%	750 / 650 (2)			1250 / 1200 (2)	
Durability after aging::								
• **Flow resistance at elevated temperature**	1296-1110	°C	-10°C	140				
• **UV Ageing**	1297	-	-	Compliant				
• **Watertightness**	1296-1928	kPa	≥	60				
Steam permeability	1931	μ	≥	20,000				
Root resistance	13948	-	-	-				Passes the test
External fire behaviour	13501-5	EC (3)	-	-	Passes ENV 1187-2			
Fire reaction	13501-1	EC (3)	-	-	Class E (4)			

Notes: (1) In compliance with the applicable AISPEC/SITEB-MBP Guidelines.
(2) Or off-joint breakage.
(3) Euroclass.
(4) Internal report.

Rev. 04 (06-22)

since 1936 IMPER ITALIA

Via Rita Atria, 9 • 10079 Mappano (TO) Italy • Tel (+39) 011 222.54.99 • imper@imper.it www.imper.it