

TECHNICAL DATASHEET



FLAGON A

Description

Membrane composed of flexible PVC.

Used as single layer waterproofing for covered structures. It's ideal for waterproofing systems of parkings for light vehicles. The membrane is distinguished by a good resistance against temporary contact with oils and hydrocarbons (always verify the compatibility*), with a high resistance to puncture and a high mechanical resistance.

* contact Soprema for more information

Characteristics

Material Reinforcement Standard colour Black	Composition	Standard	Unit		Value		Tolerance
Standard colour Technical characteristics EN 1849-2 mm 1,5 1,8 2,0 ± 5 %	Material				flexible PVC		
Technical characteristics Membrane thickness EN 1849-2 kg/m² 1,80 2,15 2,40 Mass EN 1849-2 kg/m² 1,80 2,15 2,40 Tensile force (L / T) EN 12311-2 kN/mm² 2 ≥ 17,5 Elongation at maximum tensile force (L / T) EN 12311-2 kN/mm² 2 ≥ 17,5 Elongation at maximum tensile force (L / T) EN 12310-2 kN ≥ 120 ≥ 145 ≥ 160 Tear resistance EN 12310-1 kN ≥ 375 ≥ 450 ≥ 500 Resistance to impact EN 12591-1 km m ≥ 800 ≥ 900 ≥ 1250 Resistance to impact EN 12691-1 km m ≥ 800 ≥ 900 ≥ 1250 Foldability at low temperature EN 12516-2 ky/50 mm ≥ 800 ≥ 200 Shear resistance joint EN 12317-2 ky/50 mm ≥ 915 (*) ≥ 1100 (*) ≥ 1200 (*) Shear resistance joint EN 12317-2 ky/50 mm ≥ 915 (*) ≥ 1100 (*) ≥ 1200 (*) Waterightness EN 1928 kPa/24 h ≥ 60 > 2.0 Dimensional stability EN 1107-2 kg ≤ 2,0 > 2.0 Durability watertightness EN 1847 kPa/24 h ≥ 60 > 2.0 - after chemicals exposure EN 1847 kPa/24 h ≥ 60 > 2.0 Resistance to static loading EN 12730-B kg ≥ 20 <	Reinforcement				-		
Membrane thickness EN 1849-2 kg/m² mm 1,5 1,8 2,0 ± 5 % Mass EN 1849-2 kg/m² 1,80 2,15 2,40 Tensile force (L / T) EN 12311-2 kg ≥ 17,5 Elongation at maximum tensile force (L / T) EN 12311-2 % ≥ 300 Elongation at maximum tensile force (L / T) EN 12310-2 N ≥ 120 ≥ 145 ≥ 160 Tear resistance EN 12310-2 N ≥ 300 ≥ 500 ≥ 500 Resistance to impact EN 12310-1 N ≥ 375 ≥ 450 ≥ 500 Resistance to impact EN 12691-A mm ≥ 800 ≥ 900 ≥ 1250 Foldability at low temperature EN 12691-A mm ≥ 800 ≥ 900 ≥ 1250 Foldability at low temperature EN 12691-A mm ≥ 800 ≥ 900 ≥ 1250 Foldability at low temperature EN 12691-A mm ≥ 800 ≥ 200 Shear resistance joint EN 12317-2 N/50 mm ≥ 915 (*) ≥ 1100 (*) ≥ 1200 (*) Wateritificial ageing EN 1928 kPa/24 h ≥ 60 ≥ 60 ≥ 20	Standard colour				black		
Mass EN 1849-2 kg/m² kg/m² 1,80 2,15 2,40 Tensile force (L / T) EN 12311-2 ks 527-3 N/mm² ≥ 17,5 ≥ 17,5 Elongation at maximum tensile force (L / T) EN 12311-2 ks ≥ 300 ≥ 300 Fear resistance EN 12310-2 N ≥ 120 ≥ 145 ≥ 160 ≥ 160 ≥ 17,5 Tear resistance (nail shank) EN 12310-1 N ≥ 375 ≥ 450 ≥ 500 ≥ 500 Resistance to impact EN 12691-A mm ≥ 800 ≥ 900 ≥ 1250 ≥ 500 Foldability at low temperature EN 495-5 °C ≤ -25 Peel resistance joint EN 12316-2 N/50 mm ≥ 800 ≥ 900 ≥ 1250 Shear resistance joint EN 12317-2 N/50 mm ≥ 915 (°) ≥ 1100 (°) ≥ 1200 (°) Watertightness EN 12317-2 N/50 mm ≥ 915 (°) ≥ 1100 (°) ≥ 1200 (°) Watertightness EN 1928 kPa/24 h ≥ 60 ≥ 2,0 Dimensional stability EN 1107-2 % ≤ 2,0 Durability watertightness EN 1296 kPa/24 h ≥ 60 ≥ 60 - after artificial ageing after chemicals exposure EN 1847 kPa/24 h ≥ 60 ≥ 60 Resistance to static loading EN 193948	Technical characteristics						
Tensile force (L / T)	Membrane thickness	EN 1849-2	mm	1,5	1,8	2,0	± 5 %
Elongation at maximum tensile force (L / T)	Mass	EN 1849-2	kg/m²	1,80	2,15	2,40	
force (L / T) EN 12311-2 % ≥ 300 Tear resistance EN 12310-2 N ≥ 120 ≥ 145 ≥ 160 Tear resistance (anil shank) EN 12310-1 N ≥ 375 ≥ 450 ≥ 500 Resistance to impact EN 12691-A mm ≥ 800 ≥ 900 ≥ 1250 Foldability at low temperature EN 495-5 °C ≤ -25 Peel resistance joint EN 12316-2 N/50 mm ≥ 200 Shear resistance joint EN 12317-2 N/50 mm ≥ 200 ≥ 1200 (°) Watertightness EN 1928 RPa/24 h ≥ 60 ≥ 1200 (°) Watertightness EN 1928 RPa/24 h ≥ 60 ≥ 60 Dimensional stability EN 1107-2 % ≤ 2,0 ≥ 20 Durability watertightness - after artificial ageing EN 1296 kPa/24 h ≥ 60 > 240 - after artificial ageing EN 1847 kPa/24 h ≥ 60 > 260 Resistance to static loading EN 1270-B kg ≥ 20 Reaction to fire	Tensile force (L / T)		N/mm²		≥ 17,5	VIIV	
Tear resistance (nail shank) EN 12310-1 N ≥ 375 ≥ 450 ≥ 500 Resistance to impact EN 12691-A mm ≥ 800 ≥ 900 ≥ 1250 Foldability at low temperature EN 495-5 °C ≤ -25 Peel resistance joint EN 12316-2 N/50 mm ≥ 200 Shear resistance joint EN 12317-2 N/50 mm ≥ 915 (°) ≥ 1100 (°) Shear resistance joint EN 12317-2 N/50 mm ≥ 915 (°) ≥ 1100 (°) Watertightness EN 1928 kPa/24 h ≥ 60 ≥ 60 Durability watertightness - after artificial ageing EN 1296 kPa/24 h ≥ 60 ≥ 60 - after artificial ageing EN 1847 kPa/24 h ≥ 60 ≥ 60 ≥ 60 Resistance to root penetration EN 1847 kPa/24 h ≥ 60 ≥ 20 ≥ 20 Reaction to fire EN 11925-2 / EN 13501-1 E E E E Resistance to static loading EN 160 1236 N > 1800 > 2160 > 2450 <t< td=""><td></td><td>EN 12311-2</td><td>%</td><td>V.</td><td>≥ 300</td><td>V</td><td></td></t<>		EN 12311-2	%	V.	≥ 300	V	
Resistance to impact EN 12691-A mm ≥ 800 ≥ 900 ≥ 1250 Foldability at low temperature EN 495-5 °C ≤ -25 Peel resistance joint EN 12316-2 N/50 mm ≥ 200 Shear resistance joint EN 12317-2 N/50 mm ≥ 915 (*) ≥ 1100 (*) Shear resistance joint EN 1291 N/50 mm ≥ 915 (*) ≥ 1100 (*) Shear resistance joint EN 1291 N/50 mm ≥ 910 (*) ≥ 1200 (*) Watertightness EN 1928 kPa/24 h ≥ 60 ≥ 60 ≥ 20 Dimensional stability EN 1107-2 % ≤ 2,0 ≥ 60 ≥ 20 ≥ 20 ≥ 20 ≥ 20 ≥ 20 ≥ 20 ≥ 20 ≥ 20 ≥ 20 ≥ 25 ≥ 25 ≥ 25	Tear resistance	EN 12310-2	N	≥ 120	≥ 145	≥ 160	
Foldability at low temperature	Tear resistance (nail shank)	EN 12310-1	N	≥ 375	≥ 450	≥ 500	
Peel resistance joint EN 12316-2 N/50 mm ≥ 200 Shear resistance joint EN 12317-2 N/50 mm ≥ 915 (*) ≥ 1100 (*) ≥ 1200 (*) Watertightness EN 1928 kPa/24 h ≥ 60 ≥ 2,0 □ Durability watertightness - after artificial ageing - after chemicals exposure EN 1296 kPa/24 h ≥ 60 ≥ 20 ≥ 20 ≥ 20 ≥ 20 ≥ 20 ≥ 20 ≥ 20 ≥ 20 ≥ 20 ≥ 20 ≥ 20 ≥ 25 ≥ 25 ≥ 25 ≥ 25 ≥ 25 ≥ 25 ≥ 25 ≥ 25 ≥ 25 ≥ 20 ≥ 20	Resistance to impact	EN 12691-A	mm	≥ 800	≥ 900	≥ 1250	
Shear resistance joint EN 12317-2 N/50 mm ≥ 915 (*) ≥ 1100 (*) ≥ 1200 (*) Watertightness EN 1928 kPa/24 h ≥ 60 Dimensional stability EN 1107-2 % ≤ 2,0 Durability watertightness - after artificial ageing - after chemicals exposure EN 1296 kPa/24 h ≥ 60 - after chemicals exposure EN 1847 kPa/24 h ≥ 60 Resistance to root penetration EN 13948 conform Resistance to static loading EN 12730-B kg ≥ 20 Reaction to fire EN 11925-2 / EN 13501-1 E E Resistance to static loading EN 150 12236 N > 1800 > 2450 Water permeability EN 14150 m³/(m².d) < 10·6	Foldability at low temperature	EN 495-5	°C		≤ -25		
Watertightness EN 1928 kPa/24 h ≥ 60 Dimensional stability EN 1107-2 % ≤ 2,0 Durability watertightness - after artificial ageing EN 1296 kPa/24 h ≥ 60 - after chemicals exposure EN 1847 kPa/24 h ≥ 60 Resistance to root penetration EN 1847 kPa/24 h ≥ 60 Resistance to static loading EN 13948 conform Resistance to static loading EN 12730-B kg ≥ 20 Reaction to fire EN 11925-2 / EN 13501-1 E E Resistance to static loading EN ISO 12236 N > 1800 > 2450 Water permeability EN ISO 12236 N > 1800 > 2450 Water permeability EN 14150 m³/(m².d) < 10-6	Peel resistance joint	EN 12316-2	N/50 mm		≥ 200		
Dimensional stability	Shear resistance joint	EN 12317-2	N/50 mm	≥ 915 ^(*)	≥ 1100 ^(*)	≥ 1200 ^(*)	
Durability watertightness - after artificial ageing	Watertightness	EN 1928	kPa/24 h		≥ 60		
- after artificial ageing	Dimensional stability	EN 1107-2	%		≤ 2,0		
Resistance to static loading EN 12730-B kg ≥ 20 Reaction to fire EN 11925-2 / EN 13501-1 E Resistance to static loading EN ISO 12236 N > 1800 > 2160 > 2450 Water permeability EN 14150 m³/(m².d) $< 10^{-6}$ Durability: - oxidation, variation in tensile properties - environmental stress cracking resistance - weathering, variation in tensile prop. after 10500 h Packing Length of the roll EN 1848-2 m ≥ 25 ≥ 20 ≥ 20 Width of the roll EN 1848-2 m $\geq 2,10$ Mass/roll	 after artificial ageing after chemicals exposure 	EN 1847	,		≥ 60		
Reaction to fire $\frac{\text{EN } 11925-2 / \\ \text{EN } 13501-1}{\text{EN } 13501-1}}$ $\frac{\text{E}}{\text{EN } 13501-1}}$ $\frac{\text{EN } 1800}{\text{EN } 1800}$ $\frac{1}{2}$ 1	· · · · · · · · · · · · · · · · · · ·						
Resistance to static loading EN ISO 12236 N > 1800 > 2160 > 2450 Water permeability EN 14150 m³/(m².d) $< 10^{-6}$ Durability: - oxidation, variation in tensile properties - environmental stress cracking resistance - weathering, variation in tensile prop. after 10500 h Packing Length of the roll EN 1848-2 m ≥ 25 ≥ 20 ≥ 20 Width of the roll EN 1848-2 m $\geq 2,10$ Mass/roll	Resistance to static loading		kg		≥ 20	1	
Water permeability EN 14150 m³/(m².d) < 10^{-6} Durability: - oxidation, variation in tensile properties - environmental stress cracking resistance - weathering, variation in tensile prop. after 10500 h Packing Length of the roll EN 1848-2 m ≥ 25 ≥ 20 ≥ 20 Width of the roll EN 1848-2 m ≥ 2,10 Mass/roll kg ± 95 ± 90 ± 101	Reaction to fire	EN 13501-1					
Durability: - oxidation, variation in tensile properties - environmental stress cracking resistance - weathering, variation in tensile prop. after 10500 h Packing Length of the roll EN 1848-2 EN 1848-2 EN 1848-2 Mass/roll Sample 25 Sa	Resistance to static loading	EN ISO 12236		> 1800		> 2450	
- oxidation, variation in tensile properties - environmental stress cracking resistance - weathering, variation in tensile prop. after 10500 h Packing Length of the roll EN 1848-2 EN 1848-2 Mass/roll Sequence ≤ 25 Monot applicable ≤ 25 ≤ 25 ≥ 20 ≥ 210	Water permeability	EN 14150	$m^3/(m^2.d)$		< 10 ⁻⁶	1	
resistance - weathering, variation in tensile prop. after 10500 h Packing Length of the roll EN 1848-2 Width of the roll EN 1848-2 Mass/roll EN 1848-2 EN 195 \pm 20	 oxidation, variation in tensile properties 	EN 14575	%		≤ 25		
prop. after 10500 h	resistance	ASTM D 5397	h		not applicable		
Length of the rollEN 1848-2m≥ 25≥ 20≥ 20Width of the rollEN 1848-2m≥ 2,10Mass/rollkg \pm 95 \pm 90 \pm 101	prop. after 10500 h	EN 12224	%		≤ 25		
Width of the roll EN 1848-2 m \geq 2,10 Mass/roll kg \pm 95 \pm 90 \pm 101							
Mass/roll kg ± 95 ± 90 ± 101			m	≥ 25	≥ 20	≥ 20	
	Width of the roll	EN 1848-2	m				
Rolls/pallet 23 18 18	Mass/roll		kg	± 95	± 90		
NPD = no performance determined				23	18	18	

NPD = no performance determined

Installation

Contact: www.soprema.com

Loose-laid waterproofing for structures containing liquids.

The overlaps are welded with hot air or hot wedge.

After installation the membrane needs to be protected against UV-rays.

The membrane is applied in conjunction with accessories from FLAG.

SOPREMA reserves the right to amend the composition of its material and consequently their prices, without prior notice. For this reason, all orders will be accepted only in accordance with the conditions and technical specifications in force at the date of order.





TDS-NE-WPSIT0006.a/EN

^(*) rupture outside joint



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Special indications

Hygiene, Health and Environment

The product does not contain any substance which is likely to be detrimental to your health or to the environment and complies with generally admitted Health and Safety Requirements. For more information, please refer to the relevant safety data sheet.

Quality-, Environment- and Safety Management

SOPREMA always recognises as a high level of importance the quality of the products, the environment and safety. For this reason, we operate independently monitored Quality and Environment Assurance Systems in line with **EN ISO 9001** and **EN ISO 14001**.



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