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ENVIRONAP 1[®]

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Description: *ENVIRONAP 1[®]* and *ENVIRONAP 1[®]* membranes are a high performance puncture-resistant geomembrane. They are composed of non-woven polyester geotextile reinforcement with a glass fleece that is completely impregnated with SBS modified bitumen, sanded on one side with a polyester film on the other side.
For complete information on application and systems please consult our specification manual.

Membrane properties:

Properties	Standards	ENVIRONAP 1 [®]	ENVIRONAP 1 [®]
Thickness (mm)	-	3 (118 mils)	3.6 (142 mils)
Dimensions (m)	-	2 x 20 and 2 x 100 (6.6 x 65.6 ft and 6.6 x 328 ft)	4 x 100 (13.1 x 328 ft)
Mass per unit area (kg/m ²)	-	3.76 (0.77 lbs/ft ²)	4.15 (0.85 lbs/ft ²)
Elongation, 5 % maximum load (%)	ASTM D5147	100	
Breaking strength, MD / XD ¹ (N/5 cm)	ASTM D7275	1000 / 700	1000 / 800
Ultimate elongation, MD / XD ¹ (%)	ASTM D7275	40 / 50	60 / 60
Specific gravity	ASTM D792	1.25	
Dimensional stability (% change each direction)	ASTM D1204	< 1	
Tear resistance (N)	ASTM D5147	400 (90 lbf)	
Tensile strength, MD / XD ¹ (N)	ASTM D5147	445 / 334 (100 / 75 lbf)	
Puncture resistance (N)	FTMS 101 Method 2065	422 (95 lbf)	
Static puncturing – Force (N) – Displacement (mm)	NF EN ISO 12236	2560 (575 lbf) 48 (1.89 in)	2460 (550 lbf) 44 (1.75 in)
Cold temperature flexibility (°C)	NF EN 1109	-20 (-4 °F)	
Flow resistance, 2 h @ 100 °C (mm)	NF EN 1110	≤ 2	
Water tightness (m ³ /m ² /day)	EN 14150	≤ 1 x 10 ⁻⁸	
Gas tightness (m ³ /m ² /day)	ASTM D1434-82	≤ 2.76 x 10 ⁻⁵	
Resistance to oxydation	NF EN 14575	Very good	
Resistance to weathering ²	NF EN 12224	No loss in properties	
Resistance to soil burial (% change in original value) 1. Breaking factor 2. Elongation	ASTM D3083	10 10	

(All values are nominal)

¹ MD: Machine direction; XD: Cross machine direction

² Test conditions: 5 hours UV cycle at 50 °C followed by 1 hour condensation at 20 °C; Total: 3000 hours.