



Protection



Reinforcement



Drainage

HIGH DENSITY POLYETHYLENE IMPERMEABLE GEOMEMBRANE

HDPE geomembranes are the most commonly specified liners in the construction industry. Tried and tested, HDPE membranes are resistant to most chemicals, are extremely robust and have a high stress fracture resistance. Wrekin HDPE liners are available in 1mm, 1.5mm, 2mm, 2.5mm and 3mm sheet thickness.

Suitable for anaerobic digestion applications, barriers against hydrocarbons and protecting against the ingress of harmful soil based gases such as methane, carbon dioxide and radon.

APPLICATION AREAS

- ▶ Ponds
- ▶ Lagoons
- ▶ Anaerobic digestion ponds
- ▶ Gas barrier
- ▶ Hydrocarbon barrier
- ▶ Swales
- ▶ Attenuation tanks

FUNCTIONS

- ▶ Protection
- ▶ Reinforcement
- ▶ Drainage

CHARACTERISTIC	TEST METHOD	UNIT	0.75	1.0	1.5	2.0	2.5	3.0
Material	DSC analysis		PE-HD					
Surface			G/G (smooth / smooth)					
Width	EN 1848-2	m	5.1 or 8.0					
PHYSICAL PROPERTIES								
Thickness	EN 1849-2	mm	0.75 (± 10%)	1.0 (± 10%)	1.5 (± 10%)	2.0 (± 10%)	2.5 (± 10%)	3.0 (± 10%)
Density	EN ISO 1183	g/cm ³	≥ 0.0942					
Dimensional stability	EN 1107-2	%	± 2					



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HYDRAULIC PROPERTIES								
Permeability to liquids	EN 14150	m ³ /(m ² .d)	< 1.0 x 10 ⁻⁶					
Gas permeability	ASTM D 1434	mol/(m ² .d)	<6.03 x 10 ⁻³					
MECHANICAL PROPERTIES								
Tensile strength MD / CMD	vEN ISO 527-1.3 Specimen type 5 Velocity 100mm/ min	N/mm ²	32 / 32 (28 / 28)					
Elongation (extensometer) MD/CMD		%	800 / 800 (700 / 700)					
Strength at yield MD / CMD		N/mm ²	18 / 18 (16 / 16)					
Elongation at yield MD / CMD		%	12 / 12 (10 / 10)					
Puncture resistance	EN ISO 12236	kN	3.2 (2.7)	3.2 (2.7)	4.3 (3.7)	5.0 (4.5)	6.0 (5.5)	6.0 (5.5)
Tear strength (Graves)	ISO 34-1	N/mm (N)	130 (120) 112 (105)	130 (120) 112 (105)	130 (120) 168 (155)	130 (120) 224 (210)	130 (120) 279 (265)	130 (120) 336 (315)
Frictional Characteristics (Direct Shear)	EN ISO 12957-1	22 (G) Vs Standard Sand degree						
THERMAL PROPERTIES								
Foldability at low temperature	EN 495-5	°C	-30					
Linear thermal expansion coefficient	ASTM D 696	mm/(mm.K)	2.0 E-04					

Above mentioned data are nominal values and of informative character only. The values in brackets are minimum values. The manufacturer reserves the right to alter the specifications without prior notice. It is the responsibility of all customers to reassure themselves that the above specifications are current.

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