

Geomembrane



Applications for Textured HDPE

- Construction of reservoirs and dams
- Construction of canals
- Construction of liquid waste disposal sites, transfer stations, or secondary containment
- Construction of solid waste storage and disposal sites
- Construction of transportation infrastructure
- Attenuation ponds
- Lagoons
- Anaerobic digestion ponds

Benefits of Textured HDPE

- Increased frictional resistance

HDPE Textured Geomembrane

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

- Protection - Stress reduction layer to prevent or reduce damage
- Reinforcement - Resists stresses or reduces deformations
- Drainage - Collects and transports fluids within its thickness

Characteristic	Test Method	Unit	Thickness				
			1.0mm	1.5mm	2.00mm	2.5mm	3.0mm
Material Properties							
Material	DSC analysis		High Density Polyethylene (HDPE)				
Width		m	5.1 or 8.0				
Length		m	110	90	75	65	50
GRI-GM13 Properties							
Thickness (min. ave.)			1.0 (-5%)	1.5 (-5%)	2.0 (-5%)	2.5 (-5%)	3.0 (-5%)
- Lowest individual for 8 out of the 10 values	ASTM D 5994	mm	-10%	-10%	-10%	-10%	-10%
- Lowest individual of any of the 10 values			-15%	-15%	-15%	-15%	-15%
Asperity height (min. ave.)	ASTM D 7466	mm	0.40	0.40	0.40	0.40	0.40
Density (min)	ASTM D 1505	g/cm ³	0.940				
Tensile Properties (min. ave.)							
Yield Strength	ASTM D 6693 type IV	kN/m	17.00	25.00	33.00	40.00	45.00
Break Strength		kN/m	29.00	38.00	58.00	65.00	75.00
Yield Strength		%	12.00	12.00	12.00	12.00	12.00
Break Elongation		%	750.00	750.00	750.00	750.00	750.00
Tear Resistance (min. ave.)	ASTM D 1004	N	130	190	260	340	380
Puncture Resistance (min. ave.)	ASTM D 4833	N	330	530	650	810	930
Stress Crack Resistance	ASTM D 5397	hr.	500	500	500	500	500
Carbon Black Content	ASTM D 4218/6370	%	2-3	2-3	2-3	2-3	2-3
Carbon Black Dispersion	ASTM D 5596	Category min. 9 in Categories 1 or 2 and max. 1 in Category 3					
Oxidative Induction Time (OIT) (min. ave.) Standard OIT	ASTM D 3895	min.	100	100	100	100	100
High Pressure OIT	ASTM D 5885		400	400	400	400	400
Oven Aging at 85°C Standard OIT (min. ave.)	ASTM D 5721	%	55	55	55	55	55
% retained after 90 days	ASTM D 3895						
High Pressure (min. ave.)	ASTM D 5885	%	80	80	80	80	80
% retained 90 days							
UV Resistance	ASTM D 7238	%	50	50	50	50	50
High Pressure OIT (min. ave.)	ASTM D 5885						
% retained after 1600 hours							

1. Wrekin Products Ltd is continually seeking to improve our products and therefore reserves the right to alter product specifications without prior notice.
2. It is the responsibility of all users to satisfy themselves the above data is current.
3. Installation details are available on request.
4. Published March 2017 - Version 1.AC



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