

Aquablock

Textured Geomembrane

Aquablock textured geomembrane is a co-extruded linear low density polyethylene (LLDPE) geomembrane available on one or both sides. It is manufactured from the highest quality resin specifically formulated for flexible geomembranes. This product is used in applications that require increased frictional resistance, flexibility and elongation properties where differential or localised sub grade settlements may occur such as in landfill closure application.

Tested Property	Unit	Test Method	Minimum average values		
Thickness (normal) Minimum average Lowest individual for 8 out of 10 values Lowest individual for any of the 10 values	mm	ASTM D 5994	1.0 nom -5% nom -10% nom -15%	1.5 nom -5% nom -10% nom -15%	2.0 nom -5% nom -10% nom -15%
Density	g/cm ³	ASTM D 792	≤ 0.939	≤ 0.939	≤ 0.939
Tensile properties (each direction)		ASTM D 638 / D 6693 (Type IV: 200mm/min; l ₀ = 50mm)			
Strength at break	N/mm		12	18	24
Elongation at break	%		250	250	250
Tear resistance	N	ASTM D 1004	100	150	200
Puncture resistance	N	ASTM D 4833	200	300	400
Carbon black content	%	ASTM D 4218	2.0 - 3.0	2.0 - 3.0	2.0 - 3.0
Carbon black dispersion	Category	ASTM D 5596	1/2 ^(a)	1/2 ^(a)	1/2 ^(a)
Dimensional stability (each direction)	%	ASTM D 1204 (120°C/1 h)	± 2	± 2	± 2
Melt flow index (b)	g/10 min	ASTM D 1238 (190°C / 5.0kg) (190°C / 2.16kg)	≤ 3.0 ≤ 1.0	≤ 3.0 ≤ 1.0	≤ 3.0 ≤ 1.0
Asperity height (each side)	mm	ASTM D 7466	0.40 ^(c)	0.40 ^(c)	0.40 ^(c)
Oxidative induction time (OIT)	min	ASTM D 3895 (200°C; Pure O ₂ ; 1 atm)	≥ 100	≥ 100	≥ 100
Reference Property					
Multiaxial elongation at break	%	Similar to ASTM D 5617: Ø = 500mm	≥ 30	≥ 30	≥ 30
Low temperature brittleness	°C	ASTM D 746	- 77	- 77	- 77
UV Resistance (d) HP-OIT Retained after 1600 hours (e)	%	ASTM D 7238 ASTM D 5885	≥ 35	≥ 35	≥ 35
Roll width (f)	m	-	6.95		
Surface	-	-	Single-sided or double-sided textured		

- (a) Dispersion only applies to near spherical agglomerates. 9 of 10 views shall be category 1 or 2. No more than 1 view from category 3.
- (b) Standard test conditions: 190°C / 5.0kg
- (c) 8 out of 10 readings must be ≥ 0.35mm and lowest individual reading must be ≥ 3.0mm
- (d) Test conditions: 20 hours UV cycle at 75°C followed by 4 hours condensation at 60°C
- (e) UV resistance is based on percent retained value regardless of the original high pressure - OIT value
- (f) Roll widths and lengths have a tolerance of ± 1%