

ProLiner® HDPE SMOOTH GEOMEMBRANE

DESCRIPTION

HDPE geomembranes have a generalised use as fundamental waterproofing materials of channels, dams & containment structures. HDPE is a non polar, semicrystalline thermoplastic material with good mechanical properties, high chemical stability & electrical insulation. ProLiner HDPE does not absorb humidity, is odourless & physically inert. ProLiner HDPE geomembranes are manufactured with resins which are specially formulated & certified.

HDPE smooth geomembranes have a minimum density of 0.94 g/cm³. HDPE smooth geomembranes have very low permeability, high stress resistance, high elongation at break and good chemical and UV resistance (2-3% carbon black) for the storage of liquids & solids.

All ProLiner HDPE geomembranes are manufactured to exceed the requirements of GRI GM13 standards.

Available in rolls of up to 170m long for 1mm thick product. All product is available in 8m width and roll length decreases with thickness increase.

PROPERTIES	UNIT	TEST METHOD*	STANDARD 1.00MM	STANDARD 1.50MM	STANDARD 2.00MM	STANDARD 2.50MM
Thickness Average	mm	ASTM D 5199	1.0	1.50	2.00	2.50
Thickness Min (-10%)	mm	ASTM D 5199	0.90	1.35	1.80	2.25
Density (min)	g/cm ³	ASTM D 792	0.94	0.94	0.94	0.94
Tensile Properties:						
Yield Strength	kN/m	ASTM D 6693 (Type IV)	15	22	29	37
Break Strength	kN/m		30	45	58	75
Yield Elongation	%		13	13	13	13
Break Elongation	%		700	700	700	700
Tear Resistance	N	ASTM D 1004	125	191	254	317
Puncture Resistance	N	ASTM D 4833	360	528	704	880
Stress Crack Resistance	Hr	ASTM D 5397	600	600	600	600
Carbon Black Content	%	ASTM D 1603	2.0-3.0	2.0-3.0	2.0-3.0	2.0-3.0
Carbon Black Dispersion	Cat	ASTM D 5596	1-2	1-2	1-2	1-2
Oxidative Induction Time (OIT)	min	ASTM D 3895	100	100	100	100
Oven Ageing at 85°C Standard OIT (90 days) or High Pressure OIT (90 days)	%	ASTM D5721 D3895	55 80	55 80	55 80	55 80
UV Resistance High Pressure OIT (1600 hours)	%	GM 11 ASTM D5885	50	50	50	50



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ProLiner is a registered trademark of Global Synthetics Pty Ltd. ProLiner is manufactured to ISO9001, quality assurance procedure. Properties of ProLiner are minimum typical roll values unless otherwise noted. (GM) refers to the Geosynthetic Research Institute GRI-USA.

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