

ProLiner® HDPE Liner Range Smooth

HDPE Smooth Geomembrane

For fundamental waterproofing of channels, dams & liquid containment structures



Product Information

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.

Features

- Black/white Geomembrane is now available
- Economical alternatives to traditional containment methods
- Quality products
- Smooth or textured varieties
- Ultra-wide rolls to minimise installation costs
- Wide choice of membranes to suit the application

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Product Data Sheet

Product Grade

Properties	Unit	Test Method*	Standard 1.00mm	Standard 1.50mm	Standard 2.00mm	Standard 2.50mm
Thickness Average	mm	ASTM D 5199	1.00	1.50	2.00	2.50
Thickness Min (-10%)	mm	ASTM D 5199	0.90	1.35	1.80	2.25d
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	15	22	29	37
Break Strength	kN/m	(Type IV)	30	45	58	75
Yield Strength	%		13	13	13	13
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 Aging at 85°C						
Standard OIT % retained at 90 days	%	ASTM D5721	55	55	55	55
OR		D3895	80	80	80	80
High pressure OIT % retained at 90 days						
UV Resistance	%	GM11	50	50	50	50
HP OIT % retained after 1600hrs		ASTM D5885				
Roll Sizes	m	-	8 x 170	8 x 110	8 x 80	8 x 70

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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About Us

Leaders in Geosynthetics

Global Synthetics is a 100% Australian-owned company, proud to offer a complete range of high-quality geosynthetic products backed by over 200 years of combined staff experience in the industry.

We have supplied products to some of the largest recent infrastructure works in Australia. Global Synthetics provides major benefits to any geotechnical engineering project with the right products and our technical expertise.

Global Synthetics products are used in the following applications:

- Pavement Stabilisation
- Ground Improvement
- Soil Reinforcement and Retaining Structures
- Water Management
- Drainage Systems & Hydraulic Works
- Landfills
- Coastal Erosion Structures

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