

ProLiner® LLDPE Liner Single Side Textured

LLDPE Single Side Textured Geomembrane

A high friction lining material for leachate pads, channels, dams & containment structures



Product Information

LLDPE smooth/textured geomembranes have a generalised use as high friction lining materials for leachate pads, channels, dams & containment structures. LLDPE is a polymer with very short & uniform branches which make its melt temperature, tensile strength & cracking resistance superior to LDPE. ProLiner® LLDPE is a non polar, semicrystalline thermoplastic with good mechanical properties, high chemical stability & electrical insulation. ProLiner LLDPE does not absorb humidity, is odourless & is physically inert. ProLiner LLDPE geomembranes are manufactured with resins which are specially formulated & certified.

LLDPE smooth/textured geomembranes have a density from 0.928 - 0.939 g/cm³. ProLiner® LLDPE smooth/textured geomembranes have low permeability, high stress resistance & flexibility, high break elongation & good chemical & UV resistance (2-3% carbon black). ProLiner® LLDPE smooth/textured geomembranes offer improved frictional resistance of the liner on steep slopes.

All ProLiner® LLDPE geomembranes are manufactured to exceed the requirements of GRI GM17 standards.

Applications

The use of membranes in civil and environmental applications is becoming more widespread as there develops a greater understanding of the effects of contaminated ground conditions on structures and the environment.

Global Synthetics are able to offer a wide range of membranes that are compatible with the diverse range of applications and contaminants likely to be encountered.

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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 nom. (-5%)	mm	ASTM D 5994	0.95	1.425	1.9	2.375
Thickness Minimum (-15%)	mm	ASTM D 5994	0.85	1.275	1.70	2.125
Asperity Height (min avg.)	mm	ASTM D 7466	0.4	0.4	0.4	0.4
Density (max)	g/cm ³	ASTM D 792	0.939	0.939	0.939	0.939
Tensile Properties		ASTM D 6693				
Break Strength	kN/m	(Type IV)	11	16	21	26
Break Elongation	%		350	350	350	350
2% Modulus (max)	N/mm	ASTM D 5323	420	630	840	1050
Tear Resistance	N	ASTM D 1004	100	153	204	255
Puncture Resistance	N	ASTM D 4833	240	340	440	550
Axi-Symmetric Break Resistance Strain (min)	%	ASTM D 5617	30	30	30	30
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	%	ASTM D 8721	35	35	35	35
Standard OIT (90days)						
or						
High Pressure OIT (90 days)		ASTM D 3895	60	60	60	60
UV Resistance	%	GM 11	35	35	35	35
High Pressure OIT (1600 hours)		ASTM D 5885				
Roll Size	m	-	8x150	8x100	8x80	8x60

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.

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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