



Global Synthetics

**ProLiner
LLDPE Liner
Range Smooth
Geomembrane**



Global Synthetics ProLiner LLDPE Liner Range Smooth Geomembrane Instructions

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Global Synthetics

Global Synthetics ProLiner LLDPE Liner Range Smooth Geomembrane



Specifications

- **Thickness Average nom.:** 1.00mm, 1.50mm, 2.00mm, 2.50mm
- **Thickness Minimum:** 1.00, 1.50, 2.00, 2.50
- **Density (max):** 0.939 g/cm³
- **Tensile Properties:**
 - **Break Strength:** 27-66 kN/m
 - **Break Elongation:** 40-105%
 - **2% Modulus (max):** 800 N/mm
- **Roll Size:** 8m width, length varies with thickness

Product Information

LLDPE geomembranes have a density from 0.928 – 0.939 g/cm³.

ProLiner LLDPE geomembranes have low permeability, high stress resistance & flexibility, high break elongation & good chemical & UV resistance (2-3% carbon black). All ProLiner LLDPE geomembranes are manufactured to exceed the requirements of GRI GM17 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.

Product Usage Instructions

Preparation:

Ensure the surface is clean, dry, and free from any sharp objects that may puncture the geomembrane.

Installation:

1. Unroll the geomembrane carefully over the designated area.
2. Secure the edges of the geomembrane using appropriate fasteners or adhesive as per the project requirements.
3. Avoid any wrinkles or folds during installation to maintain proper waterproofing.

Maintenance:

Regularly inspect the geomembrane for any damages or signs of wear and tear. Repair any punctures or tears

promptly using compatible patching materials.

ProLiner® LLDPE Liner Range Smooth LLDPE Smooth Geomembrane

Used for fundamental waterproofing of channels, dams & liquid containment structures



Product Information

LLDPE smooth geomembranes have a generalised use as a capping geomembrane or lining material 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 geomembranes have a density of 0.939 g/cm³. ProLiner® LLDPE smooth geomembranes have low permeability, high stress resistance & flexibility, high break elongation & good chemical & UV resistance (2-3%).

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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.

Product Data Sheet

Product Grade

Properties	Unit	Test Method	Standard 1.00mm	Standard 1.50mm	Standard 2.00mm	Standard 2.50mm
Thickness Average nom.	mm	ASTM D 5199	1.00	1.50	2.00	2.50
Thickness Minimum	mm	ASTM D 5199	0.90	1.35	1.80	2.125
Density (max)	g/cm ³	ASTM D 792	0.939	0.939	0.939	0.939
Tensile Properties						
Break Strength	kN/m	ASTM D 6693	27	40	53	66
Break Elongation	%	(Type IV)	800	800	800	800
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	290	416	550	682
Axi-Symmetric Break Resistance Strain % (min)		ASTM D 8721	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 850C %		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				
High Pressure OIT (1600 hours)		ASTM D 5885	35	35	35	35
Roll Size	m		8×170	8×110	8×80	8×70

LLDPE geomembranes have a generalised use as fundamental waterproofing 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 geomembranes are manufactured with resins which are specially formulated & certified.

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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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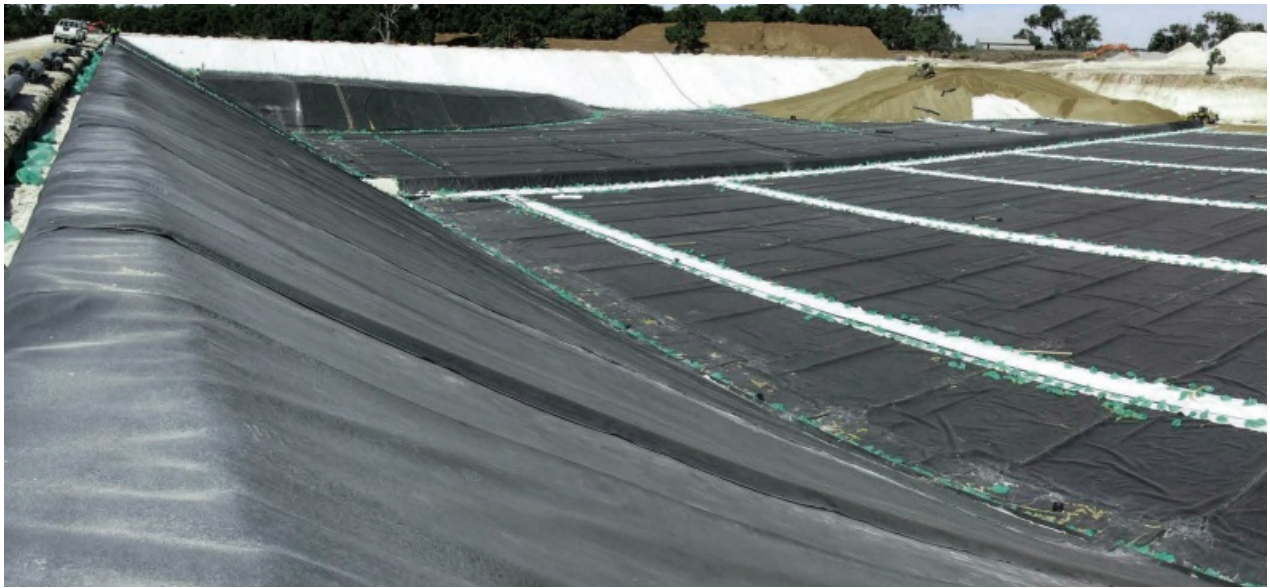
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FAQ

Q: What are the key benefits of LLDPE geomembranes?

A: LLDPE geomembranes offer low permeability, high stress resistance, flexibility, good chemical and UV resistance, and high break elongation.

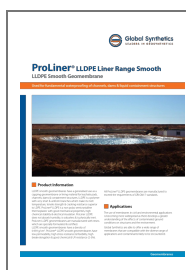
Q: How should I store unused geomembrane rolls?

A: Store unused geomembrane rolls in a cool, dry place away from direct sunlight and moisture to prevent degradation.

Q: Can LLDPE geomembranes be used for landfill applications?

A: Yes, LLDPE geomembranes are suitable for use in landfills due to their properties such as high stress resistance and chemical resistance.

Documents / Resources



[Global Synthetics ProLiner LLDPE Liner Range Smooth Geomembrane \[pdf\] Instructions](#)
ProLiner LLDPE Liner Range Smooth Geomembrane, LLDPE Liner Range Smooth Geomembrane, Liner Range Smooth Geomembrane, Smooth Geomembrane

References

- [User Manual](#)

[Manuals+](#), [Privacy Policy](#)

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