

# ProLiner® LLDPE SINGLE SIDED TEXTURED GEOMEMBRANE

## LINING SYSTEMS

### DESCRIPTION

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/cm<sup>3</sup>. 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.

Available in rolls of up to 150m long x 8m wide 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 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	0.25	0.25	0.25	0.25
Density (max)	g/cm <sup>3</sup>	ASTM D 792	0.939	0.939	0.939	0.939
Tensile Properties:						
<i>Break Strength</i>	kN/m	ASTM D 6693 (Type IV)	11	16	21	26
<i>Break Elongation</i>	%		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	220	330	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 <i>Standard OIT (90 days)</i>	%	ASTM D 5721 ASTM D 3895	35	35	35	35
UV Resistance <i>High Pressure OIT (1600 hours)</i>	%	GM 11 ASTM D 5885	35	35	35	35



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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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