

ProLiner LLDPE SMOOTH GEOMEMBRANE

DESCRIPTION

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.

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).

Available in rolls of up to 300m long x 8.5m wide. Other roll dimensions available.

| PROPERTIES | UNIT | TEST METHOD | STANDARD 1.00MM | STANDARD 1.50MM | STANDARD 2.00MM | STANDARD 2.50MM |
|--|-------------------|----------------------------|-----------------|-----------------|-----------------|-----------------|
| Thickness Average (-5%) | mm | ASTM D 5199 | 1.00 | 1.50 | 2.00 | 2.50 |
| Thickness Minimum (-15%) | mm | ASTM D 5199 | 0.90 | 1.35 | 1.80 | 2.25 |
| Density (max) | g/cm ³ | ASTM D 792 | 0.939 | 0.939 | 0.939 | 0.939 |
| Tensile Properties: | | ASTM D 6693 | | | | |
| <i>Break Strength</i> | kN/m | Type IV | 27 | 40 | 53 | 66 |
| <i>Break Elongation</i> | % | | 800 | 800 | 800 | 800 |
| 2% Modulus (max) | N/mm | ASTM D 5323 | 420 | 630 | 840 | 1050 |
| Tear Resistance | N | ASTM D 1004 | 100 | 150 | 200 | 250 |
| Puncture Resistance | N | ASTM D 4833 | 250 | 370 | 500 | 620 |
| 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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