

ProLiner® HDPE Liner Range Single Side Textured

HDPE Single Side Textured Geomembrane

For high friction lining of channels, dams & liquid containment structures



Product Information

HDPE smooth/textured geomembranes have a generalised use as high friction lining materials of channels, dams & containment structures. HDPE smooth/textured geomembrane is a non-polar, semicrystalline thermoplastic material with good mechanical properties, high chemical stability & electrical insulation. ProLiner® HDPE smooth/textured geomembrane does not absorb humidity, is odourless & physically inert. ProLiner® HDPE smooth/textured geomembranes are manufactured with resins which are specially formulated & certified.

HDPE smooth/textured geomembranes have a minimum density of 0.94 g/cm³. HDPE smooth/textured 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.

The product offers improved frictional resistance on one side of the liner on steep slopes or for providing increased frictional resistance of cover materials above the liner.

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

ProLiner® HDPE Single Textured Geomembrane

Product Data Sheet

| Properties | Unit | Test Method* | Standard 1.00mm | Standard 1.50mm | Standard 2.00mm | Standard 2.50mm |
|---|-------------------|--------------------------|-----------------|-----------------|-----------------|-----------------|
| Thickness Average | 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 | 0.94 | 0.939 | 0.939 | 0.939 |
| Tensile Properties: | | | | | | |
| Yield Strength | kN/m | ASTM D 6693 (Type IV) | 15 | 22 | 29 | 37 |
| Break Strength | kN/m | | 16 | 25 | 35 | 45 |
| Yield Strength | % | | 13 | 13 | 13 | 13 |
| Break Elongation | % | | 400 | 400 | 400 | 400 |
| Tear Resistance | N | ASTM D 1004 | 125 | 191 | 254 | 317 |
| Puncture Resistance | N | ASTM D 4833 | 305 | 440 | 587 | 735 |
| 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 Ageing at 85°C | | | | | | |
| Standard OIT % retained at 90 days | % | ASTM D 5721 | 55 | 55 | 55 | 55 |
| OR | | ASTM D 3895 | 80 | 80 | 80 | 80 |
| High pressure OIT % retained at 90 days | | | | | | |
| UV Resistance | % | GM 11 | 50 | 50 | 50 | 50 |
| HP OIT % retained after 1600hrs | | 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.

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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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