

High Performance GSE UltraFlex White Textured Geomembrane



High Performance GSE UltraFlex White Textured is a co-extruded linear low density polyethylene (LLDPE) geomembrane specifically designed to be used in the most stringent applications. A textured surface is available on one or both sides for applications that require increased frictional resistance. This product has a UV stabilized upper white surface that reflects light, improves damage detection, and reduces wrinkles and subgrade desiccation. It is designed for applications that require increased elasticity and multi-axial break resistance where differential or localized settlements may occur such as in landfill closures. This product contains only the finest raw materials to enable exceptional elasticity and excellent multi-axial break resistance. Included in this product is a custom additive package that has been engineered to enable extended geomembrane lifetime and improved resilience in elevated temperatures, hazardous waste containment, or a harsh chemical environment. In addition to a superior UV stabilization package, a well-dispersed premium grade of carbon black is utilized in the black layers to deliver superb UV resistance in exposed applications.

AT THE CORE:
An LLDPE geomembrane with a UV stabilized upper white surface used in applications that require increased frictional resistance, flexibility and elongation properties, as well as additional quality assurance.

Product Specifications

These product specifications exceed GRI GM17

| Tested Property | Test Method | Frequency | Minimum Average Value | | | |
|---|--|-----------------|-----------------------|---------------------|---------------------|---------------------|
| | | | 40 mil | 60 mil | 80 mil | 100 mil |
| Thickness, mil Lowest individual reading | ASTM D 5994 | every roll | 40 36 | 60 54 | 80 72 | 100 90 |
| Density, g/cm ³ | ASTM D 1505 | 200,000 lb | 0.92 | 0.92 | 0.92 | 0.92 |
| Tensile Properties (each direction) Strength at Break, lb/in-width Elongation at Break, % | ASTM D 6693, Type IV Dumbbell, 2 ipm G.L. 2.0 in | 20,000 lb | 115 500 | 168 500 | 224 500 | 270 500 |
| Tear Resistance, lb | ASTM D 1004 | 45,000 lb | 25 | 38 | 50 | 60 |
| Puncture Resistance, lb | ASTM D 4833 | 45,000 lb | 65 | 95 | 125 | 140 |
| Multi-axial Break Resistance, % | ASTM D 5617 | per formulation | 90 | 90 | 90 | 90 |
| Carbon Black Content ⁽¹⁾ , % (Range) | ASTM D 1603*/4218 | 20,000 lb | 2.0 - 3.0 | 2.0 - 3.0 | 2.0 - 3.0 | 2.0 - 3.0 |
| Carbon Black Dispersion | ASTM D 5596 | 45,000 lb | Note ⁽²⁾ | Note ⁽²⁾ | Note ⁽²⁾ | Note ⁽²⁾ |
| Asperity Height ⁽³⁾ , mil | ASTM D 7466 | second roll | 18 | 18 | 18 | 18 |
| Oxidative Induction Time, mins | ASTM D 3895, 200°C; O ₂ , 1 atm | 200,000 lb | >140 | >140 | >140 | >140 |
| High Pressure Oxidative Induction Time, mins | ASTM D 5885, 150°C; O ₂ , 3.4 MPa | per formulation | >550 | >550 | >550 | >550 |
| Oven aging at 85°C High Pressure OIT (min. avg.) - % retained after 90 days | ASTM D 5721 ASTM D 5885 | per formulation | 80 | 80 | 80 | 80 |
| UV Resistance High Pressure OIT (min. avg.) - % retained after 1,600 hours | GM 11 ASTM D 5885 | per formulation | 60 | 60 | 60 | 60 |
| TYPICAL ROLL DIMENSIONS | | | | | | |
| Roll Length ⁽⁴⁾ , ft | Double-Sided Textured Single-Sided Textured | | 700 780 | 520 540 | 400 410 | 330 330 |
| Roll Width ⁽⁴⁾ , ft | | | 22.5 | 22.5 | 22.5 | 22.5 |
| Roll Area, ft ² | Double-Sided Textured Single-Sided Textured | | 15,750 17,550 | 11,700 12,150 | 9,000 9,225 | 7,425 7,425 |

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Product Specifications [continued]

NOTES:

- ⁽¹⁾High Performance GSE White may have an overall ash content greater than 3.0% due to the white layer. These values apply to the black layer only.
- ⁽²⁾Dispersion only applies to near spherical agglomerates. 9 of 10 views shall be Category 1 or 2. No more than 1 view from Category 3.
- ⁽³⁾Consult GSE for information regarding asperity heights exceeding the specified values.
- ⁽⁴⁾Roll lengths and widths have a tolerance of $\pm 1\%$.
- High Performance GSE UltraFlex White Textured is available in rolls weighing approximately 4,000 lb.
- All GSE geomembranes have dimensional stability of $\pm 2\%$ when tested according to ASTM D 1204 and LTB of $< -77^{\circ}$ C when tested according to ASTM D 746.
- *Modified.

GSE is a leading manufacturer and marketer of geosynthetic lining products and services. We've built a reputation of reliability through our dedication to providing consistency of product, price and protection to our global customers.

Our commitment to innovation, our focus on quality and our industry expertise allow us the flexibility to collaborate with our clients to develop a custom, purpose-fit solution.



[DURABILITY RUNS DEEP] For more information on this product and others, please visit us at GSEworld.com, call 800.435.2008 or contact your local sales office.