



The Pioneer Of Geosynthetics  
S I N C E 1 9 7 2

## GSE UltraFlex White Smooth Geomembrane

GSE UltraFlex White is a smooth linear low density polyethylene (LLDPE) geomembrane manufactured with the highest quality resin specifically formulated for flexible geomembranes. GSE UltraFlex White has a U.V. stabilized upper white surface that reflects light, improves damage detection, reduces wrinkles and subgrade desiccation. This product is used in applications that require increased flexibility and elongation properties where differential or localized subgrade settlements may occur such as in a landfill closure application.

### Product Specifications

*These product specifications meet or exceed GRI GM17.*

TESTED PROPERTY	TEST METHOD	FREQUENCY	MINIMUM AVERAGE VALUE			
			40 mil	60 mil	80 mil	100 mil
Thickness, (minimum average) mil (mm) Lowest individual reading (-10%)	ASTM D 5199	every roll	40 (1.00) 36 (0.91)	60 (1.50) 54 (1.40)	80 (2.00) 72 (1.80)	100 (2.50) 90 (2.28)
Density, g/cm <sup>3</sup>	ASTM D 1505	200,000 lb	0.92	0.92	0.92	0.92
Tensile Properties (each direction) Strength at Break, lb/in-width (N/mm) Elongation at Break, %	ASTM D 6693, Type IV Dumbell, 2 ipm G.L. 2.0 in (51 mm)	20,000 lb	170 (29) 800	240 (42) 800	320 (56) 800	380 (66) 800
Tear Resistance, lb (N)	ASTM D 1004	45,000 lb	22 (97)	33 (146)	44 (195)	55 (244)
Puncture Resistance, lb (N)	ASTM D 4833	45,000 lb	70 (311)	100 (444)	130 (578)	155 (689)
Carbon Black Content <sup>(1)</sup> , % (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 <sup>(2)</sup>	Note <sup>(2)</sup>	Note <sup>(2)</sup>	Note <sup>(2)</sup>
Oxidative Induction Time, min	ASTM D 3895, 200° C; O <sub>2</sub> , 1 atm	200,000 lb	>140	>140	>140	>140
TYPICAL ROLL DIMENSIONS						
Roll Length <sup>(3)</sup> , ft (m)			870 (265)	560 (171)	430 (131)	340 (103)
Roll Width <sup>(3)</sup> , ft (m)			22.5 (6.9)	22.5 (6.9)	22.5 (6.9)	22.5 (6.9)
Roll Area, ft <sup>2</sup> (m <sup>2</sup> )			19,575 (1,819)	12,600 (1,171)	9,675 (899)	7,650 (710)

#### NOTES:

- <sup>(1)</sup>GSE UltraFlex White may have an overall ash content greater than 3.0% due to the white layer. These values apply to the black layer only.
- <sup>(2)</sup>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.
- <sup>(3)</sup>Roll lengths and widths have a tolerance of ± 1%.
- GSE UltraFlex White is available in rolls weighing approximately 3,900 lb (1,769 kg).
- All GSE geomembranes have dimensional stability of ±2% when tested according to ASTM D 1204 and LTB of <-77° C when tested according to ASTM D 746.
- \*Modified.