

# GSE White Smooth Geomembrane

GSE White is a smooth high density polyethylene (HDPE) geomembrane manufactured with the highest quality resin specifically formulated for flexible geomembranes. GSE 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 enhanced quality assurance measures over standard geomembranes.



**AT THE CORE:**  
An HDPE geomembrane suitable for applications that require enhanced quality assurance measures over standard geomembranes.

## Product Specifications

These product specifications meet or exceed GRI GM13.

Tested Property	Test Method	Frequency	Minimum Average Value				
Thickness, (minimum average) mm (mil) Lowest individual reading, mm (mil)	ASTM D 5199	every roll	0.75 (30) 0.68 (27)	1.0 (40) 0.9 (36)	1.5 (60) 1.35 (54)	2.0 (80) 1.8 (72)	2.5 (100) 2.25 (90)
Density, g/cm <sup>3</sup>	ASTM D 1505	every 5th roll	0.94	0.94	0.94	0.94	0.94
Tensile Properties (each direction) Strength at Break, N/mm-width (lb/in) Strength at Yield, N/mm-width (lb/in) Elongation at Break, % Elongation at Yield, %	ASTM D 6693, Type IV Dumbbell, 2 ipm G.L. 51 mm (2.0 in) G.L. 33 mm (1.3 in)	every 5th roll	21 (120) 11 (63) 700 13	28 (160) 15 (86) 700 13	43 (246) 23 (131) 700 13	57 (325) 30 (171) 700 13	71 (405) 38 (217) 700 13
Tear Resistance, N (lb)	ASTM D 1004	every 5th roll	93 (21)	125 (28)	187 (42)	249 (56)	311 (70)
Puncture Resistance, N (lb)	ASTM D 4833	every 5th roll	263 (59)	352 (79)	530 (119)	703 (158)	881 (198)
Carbon Black Content, <sup>(1)</sup> %	ASTM D 1603 / D 4218	every 5th roll	2.0-3.0	2.0-3.0	2.0-3.0	2.0-3.0	2.0-3.0
Carbon Black Dispersion	ASTM D 5596	every 5th roll	Note <sup>(2)</sup>	Note <sup>(2)</sup>	Note <sup>(2)</sup>	Note <sup>(2)</sup>	Note <sup>(2)</sup>
Notched Constant Tensile Load, hrs	ASTM D 5397, Appendix	90,000 kg	400	400	400	400	400
Oxidative Induction Time, minutes	ASTM D 3895, 200° C; O <sub>2</sub> , 1 atm	90,000 kg	>100	>100	>100	>100	>100
<b>TYPICAL ROLL DIMENSIONS</b>							
Roll Length <sup>(3)</sup> , m (ft)			280 (918)	210 (689)	140 (459)	105 (344)	85 (279)
Roll Width <sup>(3)</sup> , m (ft)			7.0 (23)	7.0 (23)	7.0 (23)	7.0 (23)	7.0 (23)
Roll Area, m <sup>2</sup> (ft <sup>2</sup> )			1,960 (21,114)	1,470 (15,847)	980 (10,557)	735 (7,912)	595 (6,417)
40' Standard Container, roll			16	16	16	16	16

NOTES:

- <sup>(1)</sup>GSE White may have an overall ash content greater than 3.0% due to the white layer.
- <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 White is provided in rolls weighing approximately 1,430 kg (3,152 lb) each.
- All GSE geomembranes have dimensional stability of ±2% when tested with ASTM D 1204 and LTB of <-77° C when tested with ASTM D 746.

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](http://GSEworld.com), call 66.2.937.0091 or contact your local sales office.

