



The Pioneer Of Geosynthetics

S I N C E 1 9 7 2

## GSE Green Textured Geomembrane

GSE Green Textured is a co-extruded textured high density polyethylene (HDPE) geomembrane available on one or both sides. It is manufactured from the highest quality resin specifically formulated for flexible geomembranes. It has a U.V. stabilized green upper surface that improves the aesthetics for the community. GSE Green Textured provides an increased frictional resistance surface and is primarily used in exposed applications which can eliminate the need for cover soil and vegetative layers.

### Product Specifications

These product specifications meet or exceed GRI GM13.

TESTED PROPERTY	TEST METHOD	FREQUENCY	MINIMUM AVERAGE VALUE				
			30 mil	40 mil	60 mil	80 mil	100 mil
Thickness, (minimum average) mil (mm) Lowest individual reading (-10%)	ASTM D 5994	every roll	30 (0.75) 27 (0.69)	40 (1.00) 36 (0.91)	60 (1.50) 54 (1.40)	80 (2.00) 72 (1.80)	100 (2.50) 90 (2.30)
Density, g/cm <sup>3</sup>	ASTM D 1505	200,000 lb	0.94	0.94	0.94	0.94	0.94
Tensile Properties (each direction)	ASTM D 6693, Type IV Dumbell, 2 ipm	20,000 lb					
Strength at Break, lb/in-width (N/mm)			66 (11)	75 (13)	115 (20)	155 (27)	230 (40)
Strength at Yield, lb/in-width (N/mm)			68 (11)	90 (15)	132 (23)	177 (31)	225 (39)
Elongation at Break, %	G.L. 2.0 in (51 mm)		100	100	100	100	100
Elongation at Yield, %	G.L. 1.3 in (33 mm)		12	12	12	12	12
Tear Resistance, lb (N)	ASTM D 1004	45,000 lb	24 (106)	32 (142)	45 (200)	60 (266)	75 (333)
Puncture Resistance, lb (N)	ASTM D 4833	45,000 lb	65 (289)	95 (422)	130 (578)	160 (711)	190 (845)
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	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>	Note <sup>(2)</sup>
Asperity Height, mil (mm)	ASTM D 7466	second roll	16 (0.40)	18 (0.45)	18 (0.45)	18 (0.45)	18 (0.45)
Notched Constant Tensile Load <sup>(3)</sup> , hr	ASTM D 5397, Appendix	200,000 lb	1,000	1,000	1,000	1,000	1,000
Oxidative Induction Time, min	ASTM D 3895, 200° C; O <sub>2</sub> , 1 atm	200,000 lb	>140	>140	>140	>140	>140
TYPICAL ROLL DIMENSIONS							
Roll Length <sup>(4)</sup> , ft (m)	Double-Sided Textured		830 (253)	700 (213)	520 (158)	400 (122)	330 (101)
	Single-Sided Textured		840 (256)	650 (198)	420 (128)	320 (98)	250 (76)
Roll Width <sup>(4)</sup> , ft (m)			22.5 (6.9)	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> )	Double-Sided Textured		18,675 (1,735)	15,750 (1,463)	11,700 (1,087)	9,000 (836)	7,425 (690)
	Single-Sided Textured		18,900 (1,755)	14,625 (1,359)	9,450 (878)	7,200 (669)	5,625 (523)

**NOTES:**

- <sup>(1)</sup>GSE Green Textured may have an overall ash content greater than 3.0% due to the green 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>NCTL for Green Textured is conducted on representative smooth membrane samples.
- <sup>(4)</sup>Roll lengths and widths have a tolerance of ± 1%.
- GSE Green Textured Double-Sided is available in rolls weighing approximately 4,000 lb (1,800 kg) and Single-Sided weighing approximately 3,000 lb (1,360 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.