

# GSE HD Color Textured Geomembrane (Green)

GSE HD Color Textured<sup>(\*)</sup> is a co-extruded 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 UV stabilized green upper surface<sup>(\*\*)</sup> that improves the aesthetics for the community. GSE HD Color 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.



**AT THE CORE:**  
An HDPE geomembrane that provides increased frictional resistance and is ideal for exposed applications when aesthetics is an issue.

## Product Specifications

These product specifications meet GRI GM13.

Tested Property	Unit	Test Method	Values		
Thickness (nominal) Minimum Average Lowest individual for 8 out of 10 values Lowest individual for any of the 10 values	mm	ASTM D 5994	1.0 nom. -5% nom. -10% nom. -15%	1.5 nom. -5% nom. -10% nom. -15%	2.0 nom. -5% nom. -10% nom. -15%
Density (Minimum Average)	g/cm <sup>3</sup>	ASTM D 792	0.94	0.94	0.94
Tensile Properties (each Direction) (Minimum Average)		ASTM D 638 / D 6693; Type IV			
Strength at Yield	N/mm	50 mm/min	15	22	30
Elongation at Yield	%	lo = 33 mm	13	13	13
Strength at Break	N/mm	50 mm/min	10	16	21
Elongation at Break	%	lo = 50 mm	100	100	100
Tear Resistance (Minimum Average)	N	ASTM D 1004	130	190	250
Puncture Resistance (Minimum Average)	N	ASTM D 4833	267	400	534
Dimensional Stability (each Direction)	%	ASTM D 1204 (120°C/1 h)	± 2	± 2	± 2
Melt Flow Index <sup>(a)</sup>	g/10 min	ASTM D 1238 (190°C / 5.0 kg) (190°C / 2.16 kg)	≤ 3.0 ≤ 1.0	≤ 3.0 ≤ 1.0	≤ 3.0 ≤ 1.0
Stress Crack Resistance (NCTL) <sup>(b)</sup>	h	ASTM D 5397; Appendix	≥ 500	≥ 500	≥ 500
Asperity Height (each Side) (Minimum Average)	mm	ASTM D 7466	0.40 <sup>(c)</sup>	0.40 <sup>(c)</sup>	0.40 <sup>(c)</sup>
Oxidative Induction Time (OIT)	min	ASTM D 3895 (200°C; Pure O <sub>2</sub> ; 1 atm)	≥ 100	≥ 100	≥ 100
<b>Reference Property</b>					
Low Temperature Brittleness	°C	ASTM D 746	- 77	- 77	- 77
Carbon Black Content <sup>(d)</sup> (black layer)	%	ASTM D 4218	2.0 - 3.0	2.0 - 3.0	2.0 - 3.0
Carbon Black Dispersion (black layer)	Category	ASTM D 5596	1/2 <sup>(e)</sup>	1/2 <sup>(e)</sup>	1/2 <sup>(e)</sup>
UV Resistance <sup>(f)</sup> HP-OIT retained after 1,600 hours <sup>(g)</sup>	%	ASTM D 7238 ASTM D 5885	≥ 50	≥ 50	≥ 50
Roll Width (approx.) <sup>(h)</sup>	m	---	6.95		
Surface	---	---	single-sided or double-sided textured		

NOTES:

- (\*) RAL 6003 Olive-Green. The UV-resistance as well as the color stability is variable in time dependent on the selected color.
- (\*\*) Due to the production process the brightness of the colored layer may vary.
- (a): Standard test conditions: 190°C / 5.0 kg.
- (b): Note: NCTL is conducted on representative smooth geomembrane samples.
- (c): 8 out of 10 readings must be ≥ 0.35 mm and lowest individual reading must be ≥ 0.30 mm.
- (d): GSE HD Color Textured may have an overall ash content greater than 3% due to the colored layer.
- (e): 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.
- (f): Test conditions: 20 hours UV cycle at 75°C followed by 4 hours condensation at 60°C.
- (g): UV Resistance is based on percent retained value regardless of the original High Pressure - OIT value.
- (h): Roll widths and lengths have a tolerance of ± 1%.

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 other, please visit us at [GSEworld.com](http://GSEworld.com), call 49.40.767420 or contact your local sales office.

