



GSE STANDARD PRODUCTS

Product Data Sheet

GSE UltraFlex White Textured Geomembranes

GSE UltraFlex White Textured is the white surfaced version of GSE UltraFlex Textured. GSE UltraFlex White Textured geomembrane combines all of the benefits of a linear low density polyethylene textured geomembrane with those of GSE's patented white surface. This combination of characteristics creates a geomembrane designed for improved elongation and puncture resistance making it an excellent choice for landfill caps, leach pads and other applications where differential settlement is expected and enhanced interface friction is required. GSE UltraFlex White Textured is the only LLDPE on the market with many years of proven performance in applications throughout the world and is now available with GSE's patented white surface for reduced heat buildup on the liner by reflecting solar energy. Reducing liner temperature leads to fewer wrinkles and less subgrade desiccation. *These product specifications meet or exceed GRI GM17.*

GSE Advantage Products

GSE GundSeal • GSE Conductive • GSE White • GSE PermaNet • GSE BioDrain System

Product Specifications

TESTED PROPERTY	TEST METHOD	FREQUENCY	MINIMUM VALUE		
Product Code			LUT040G010	LUT060G010	LUT080G010
Thickness, (minimum average) mil (mm)	ASTM D 5994	every roll	38 (0.96)	57 (1.45)	76 (1.93)
Lowest individual for 8 out of 10 values			36 (0.91)	54 (1.40)	72 (1.80)
Lowest individual for any of the 10 values			34 (0.86)	51 (1.30)	68 (1.73)
Density ⁽³⁾ , g/cm ³	ASTM D 1505	200,000 lb	0.92	0.92	0.92
Tensile Properties (each direction) ⁽¹⁾	ASTM D 6993, Type IV Dumbell, 2 ipm G.L. = 2.0 in (51 mm)	20,000 lb			
Strength at Break, lb/in-width (N/mm)			60 (11)	90 (16)	120 (21)
Elongation at Break, %			250	250	250
Tear Resistance, lb (N)	ASTM D 1004	45,000 lb	22 (98)	33 (147)	44 (200)
Puncture Resistance, lb (N)	ASTM D 4833	45,000 lb	44 (200)	66 (300)	88 (400)
Carbon Black Content ^{(2) (3)} , %	ASTM D 1603*/4218	20,000 lb	2.0	2.0	2.0
Carbon Black Dispersion	ASTM D 5596	45,000 lb	+Note 1	+Note 1	+Note 1
Asperity Height	GRI GM 12	second roll	+Note 2	+Note 2	+Note 2
REFERENCE PROPERTY	TEST METHOD	FREQUENCY	NOMINAL VALUE		
Oxidative Induction Time ⁽³⁾ , min	ASTM D 3895, 200° C; O ₂ , 1 atm	200,000 lb	>100	>100	>100
Roll Length ⁽⁴⁾ (approximate), ft (m)			700 (213)	520 (158)	400 (122)
Roll Width ⁽⁴⁾ , ft (m)			22.5 (6.9)	22.5 (6.9)	22.5 (6.9)
Roll Area, ft ² (m ²)			15,750 (1,463)	11,700 (1,087)	9,000 (836)

NOTES:

- +Note 1: 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.
- +Note 2: 10 mil average. 8 of 10 readings ≥ 7 mils. Lowest individual ≥ 5 mils.
- GSE UltraFlex White Textured is available in rolls weighing about 3,900 lb (1,769 kg).
- ⁽¹⁾The combination of stress concentrations due to coextrusion texture geometry and the small specimen size results in large variation of test results. Therefore, these tensile properties are average roll values.
- ⁽²⁾GSE UltraFlex White Textured may have an overall ash content greater than 3.0% due to the white layer.
- All GSE geomembranes have dimensional stability of $\pm 2\%$ when tested with ASTM D 1204 and LTB of $< -77^\circ$ C when tested with ASTM D 746.
- ⁽³⁾The values apply to the black layer only.
- ⁽⁴⁾Roll lengths and widths have a tolerance of $\pm 1\%$.
- *Modified.

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