



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

## GSE UltraFlex Textured Geomembrane (Double-Sided)

GSE UltraFlex is a co-extruded textured linear low density polyethylene (LLDPE) geomembrane available on one or both sides. It is manufactured from the highest quality resin specifically formulated for flexible geomembranes. This product is used in applications that require increased frictional resistance, 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 GM 17.*

TESTED PROPERTY	TEST METHOD	FREQUENCY	MINIMUM AVERAGE VALUE		
Product Code			LDT100 A00T	LDT150 A00T	LDT200 A00T
Thickness, mm (mil) <sup>(1)</sup>	ASTM D 5994	every roll	1.0 (40)	1.5 (60)	2.0 (80)
Lowest individual reading, mm (mil)			0.85 (34)	1.28 (51)	1.7 (68)
Density, g/cm <sup>3</sup>	ASTM D 1505	every 5th roll	0.92	0.92	0.92
Tensile Properties (each direction) <sup>(2)</sup>	ASTM D 6693, Type IV	every 5th roll			
Strength at Break, N/mm-width (lb/in)	Dumbell, 2 ipm		18 (103)	23 (131)	28 (160)
Elongation at Break, %	G.L. 51 mm (2.0 in)		400	400	400
Tear Resistance, N (lb)	ASTM D 1004	every 5th roll	100 (22)	150 (34)	200 (45)
Puncture Resistance, N (lb)	ASTM D 4833	every 5th roll	214 (48)	325 (73)	436 (98)
Carbon Black Content, %	ASTM D 1603	every 5th roll	2.0 – 3.0	2.0 – 3.0	2.0 – 3.0
Carbon Black Dispersion	ASTM D 5596	every 5th roll	Note <sup>(3)</sup>	Note <sup>(3)</sup>	Note <sup>(3)</sup>
Asperity Height	ASTM D 7466	every second roll	Note <sup>(4)</sup>	Note <sup>(4)</sup>	Note <sup>(4)</sup>
Oxidative Induction Time, minutes	ASTM D 3895, 200° C; O <sub>2</sub> , 1 atm	90,000 kg	>100	> 100	>100
<b>TYPICAL ROLL DIMENSIONS</b>					
Roll Length (approximate), m (ft)			200 (656)	100 (328)	80 (262)
Roll Width, m (ft)			7.0 (23)	7.0 (23)	7.0 (23)
Roll Area, m <sup>2</sup> (ft <sup>2</sup> )			1,400 (15,088)	700 (7,544)	560 (6,026)
40' Standard Container, roll			9	14	14

#### NOTES:

- <sup>(1)</sup> Minimum average core thickness is -5% of the nominal thickness; lowest thickness for 8 out of 10 values is -10% of the nominal value; lowest thickness for any of the 10 values is -15% of the nominal value.
- <sup>(2)</sup> The combination of stress concentrations due to co-extrusion texture geometry and the small specimen size results in large variation of test results. Therefore, these tensile properties are minimum average values.
- <sup>(3)</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>(4)</sup> 0.25 mm average. 8 of 10 readings >0.18 mm. Lowest individual > 0.13 mm.
- GSE UltraFlex Textured is provided in rolls weighing approximately 1,150 kg (2,535 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.
- Alternate the measurement side for double sided textured sheet.

ADSUltraFlexTDS R09/11/10

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