



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

GSE UltraFlex Smooth Geomembrane

GSE UltraFlex is a smooth linear low density polyethylene (LLDPE) geomembrane manufactured with the highest quality resin specifically formulated for flexible geomembranes. This product is used in applications that require increased 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			LDS 050 A00T	LDS 075 A00T	LDS 100 A00T	LDS 150 A00T	LDS 200 A00T	LDS 250 A00T
Thickness Minimum average, mm (mil)	ASTM D 5199	every roll	0.5 (20)	0.75 (30)	1.0 (40)	1.5 (60)	2.0 (80)	2.5 (100)
Lowest Individual Reading, mm (mil)			0.45 (18)	0.68 (27)	0.9 (36)	1.35 (54)	1.8 (72)	2.25 (90)
Density, g/cm ³	ASTM D 1505	every 5th roll	0.92	0.92	0.92	0.92	0.92	0.92
Tensile Properties (each direction)	ASTM D 6693, Type IV	every 5th roll						
Strength at Break, N/mm-width (lb/in)	Dumbell, 2 ipm		14 (80)	20 (114)	27 (154)	40 (228)	53 (303)	66 (377)
Elongation at Break, %	G.L. 51 mm (2.0 in)		850	850	850	850	850	850
Tear Resistance, N (lb)	ASTM D 1004	every 5th roll	54 (12)	71 (16)	100 (22)	150 (34)	200 (45)	250 (56)
Puncture Resistance, N (lb)	ASTM D 4833	every 5th roll	138 (31)	205 (46)	276 (62)	409 (92)	547 (123)	685 (154)
Carbon Black Content, %	ASTM D 1603	every 5th roll	2.0 – 3.0	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 ⁽¹⁾	Note ⁽¹⁾	Note ⁽¹⁾	Note ⁽¹⁾	Note ⁽¹⁾	Note ⁽¹⁾
Oxidative Induction Time, minutes	ASTM D 3895, 200° C; O ₂ , 1 atm	90,000 kg	>100	>100	>100	>100	>100	>100
TYPICAL ROLL DIMENSIONS								
Roll Length (approximate), m (ft)			420 (1,378)	280 (918)	210 (689)	140 (459)	105 (344)	85 (279)
Roll Width, m (ft)			7.1 (23.3)	7.0 (23)	7.0 (23)	7.0 (23)	7.0 (23)	7.0 (23)
Roll Area, m ² (ft ²)			2,982 (32,107)	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	16

NOTES:

- ⁽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.
- GSE UltraFlex is provided in rolls weighing approximately 1,410 kg (3,108 lb) each.
- All GSE geomembranes have dimensional stability of ±2% when tested with ASTM D 1204 and LTBT of <-77° C when tested with ASTM D 746.

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