

# UltraFlex Smooth Geomembrane

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 GRI GM17

Tested Property	Test Method	Frequency	Minimum Average Value			
			1.00 mm	1.50 mm	2.00 mm	2.50 mm
Thickness, mm Lowest individual reading	ASTM D 5199	every roll	1.00 0.90	1.50 1.35	2.00 1.80	2.50 2.25
Density, g/cm <sup>3</sup> (max.)	ASTM D 1505	90,000 kg	0.939	0.939	0.939	0.939
Tensile Properties (each direction) Strength at Break, N/mm Elongation at Break, %	ASTM D 6693, Type IV Dumbbell, 50 mm/min G.L. 50 mm	9,000 kg	27 800	40 800	53 800	66 800
Tear Resistance, N	ASTM D 1004	20,000 kg	100	150	200	250
Puncture Resistance, N	ASTM D 4833	20,000 kg	250	370	500	620
Carbon Black Content, % (Range)	ASTM D 1603*/4218	9,000 kg	2.0 - 3.0	2.0 - 3.0	2.0 - 3.0	2.0 - 3.0
Carbon Black Dispersion	ASTM D 5596	20,000 kg	Note <sup>(1)</sup>	Note <sup>(1)</sup>	Note <sup>(1)</sup>	Note <sup>(1)</sup>
Oxidative Induction Time, min	ASTM D 3895, 200°C; O <sub>2</sub> , 1 atm	90,000 kg	>100	>100	>100	>100
TYPICAL ROLL DIMENSIONS						
Roll Length <sup>(2)</sup> , m			265	171	131	103
Roll Width <sup>(2)</sup> , m			6.86	6.86	6.86	6.86
Roll Area, m <sup>2</sup>			1,819	1,171	899	710

### NOTES:

- <sup>(1)</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>(2)</sup>Roll lengths and widths have a tolerance of ±1%.
- GSE UltraFlex is available in rolls weighing approximately 1,800 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.