## **TITAN 60HDL**





Titan HDL Leak Location liner is a smooth, spark-testable highOdensity polyethylene (HDPE) geomembrane that contains an integrated, specially formulated conductive layer on the bottom surface of the geomembrane. This liner can be easily tested for post-installation damage using equipment capable of performing spark testing in the field per ASTM D 7240. This product is used in applications that require post-installation testing on the liner system to increase the quality of the project. This product specification meets GRI-GM13.

TESTED PROPERTY	TEST METHOD	FREQUENCY	UNIT ENGLISH (METRIC)	VALUE ENGLISH (METRIC)
Thickness Lowest Individual Reading	ASTM D 5199	every roll	mil (mm)	60 (1.50) 54 (1.35)
Density	ASTM D 1505	200,000 lbs (90,000 kg)	g/cm³ (min)	0.940
Tensile Properties (each direction) Strength at Break Strength at Yield Elongation at Break Elongation at Yield	ASTM D 6692, Type IV Dumbbell, 2 ipm (50mm/min) G.L. 2.0min (50mm) G.L. 1.3min (33mm)	20,000 lbs (9,000 kg)	lb/in-width (N/mm) lb/in-width (N/mm) % %	228 (40) 126 (22) 700 12
Tear Resistance	ASTM D 1004	45,000 lbs (20,000 kg)	lbs (N)	42 (187)
Puncture Resistance	ASTM D 4833	45,000 lbs (20,000 kg)	lbs (N)	108 (480)
Carbon Black Content	ASTM D 1603*/4218	20,000 lbs (9,000 kg)	% (range)	2.0-3.0
Carbon Black Dispersion	ASTM D 5596	45,000 lbs (20,000 kg)		Note <sup>1</sup>
Notch Constant Tensile Load	ASTM D 5397, Appendix	200,000lbs (90,000kg)	hr	300
Oxidative Induction Time	ASTM D 3895, 200°C; O <sub>2</sub> , 1 atm	200,000 lbs (90,000 kg)	min	> 100
TYPICAL ROLL DIMENSIONS				
Roll Length <sup>2</sup>			ft(m)	560 (171)
Roll Width <sup>2</sup>			ft (m)	22.5 (6.86)
Roll Area <sup>2</sup>			ft²(m²)	12,600 (1,171)

## Notes:

- (1) Dispersion only applies to near spherical agglomerates. 9 of 10 views shall be category 1 or 2. No more 1 view from category 3. (2) Roll Lengths and widths have a tolerance of  $\pm 1\%$ .
- HDPE Smooth is available in rolls weighing approximately 4,000 lb (1,800 kg).
- All geomembranes have dimensional stability of ±2% when tested according to ASTM D 1204 and LTB of <-77°C when tested according to</li>

## ASTM D 746.

\*Modified

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## **Titan Environmental Containment**