

Titan HDL Leak Location liner is a smooth, spark-testable high0density 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)	80 (2.00) 72 (1.80)
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) % %	304 (53) 168 (29) 700 12
Tear Resistance	ASTM D 1004	45,000 lbs (20,000 kg)	lbs (N)	56 (249)
Puncture Resistance	ASTM D 4833	45,000 lbs (20,000 kg)	lbs (N)	144 (640)
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)		Note1
Notch Constant Tensile Load	ASTM D 5397, Appendix	200,000lbs (90,000kg)	hr	300
Oxidative Induction Time	ASTM D 3895, 200 °C; O ₂ , 1 atm	200,000 lbs (90,000 kg)	min	> 100
TYPICAL ROLL DIMENSIONS				
Roll Length ²			ft(m)	430 (131)
Roll Width ²			ft (m)	22.5 (6.86)
Roll Area ²			ft²(m²)	9,675 (889)

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

ASTM D 746.

*Modified

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