



## Technical Data Sheet

# HD60 – 60 Mil Smooth HDPE Geomembrane

Resin Properties	Test Method	Frequency <sup>(2)</sup>	Resin HD
Resin density	ASTM D1505	Once per Batch	> 0.932 g/cc
Melt Index	ASTM D1238	Once per Batch	< 1.0 g / 10 minutes
Oxidative Induction Time	ASTM D3895	Once per Batch	> 100 minutes
Stress Crack Resistance (SP-NCTL)	ASTM D5397	Once per Batch	> 300 hours

Sheet Properties	Test Method	Frequency <sup>(2)</sup>	HD60	
			Metric Units	English Units
Thickness ( $\pm 10\%$ ) <i>Lowest individual of 10 values</i>	ASTM D5199	Every Roll	1.50 mm 1.35 mm	60 mil 54 mil
Standard Roll Dimensions <i>(Roll length may vary <math>\pm 1\%</math>)</i>	N/A	N/A	6.8 m x 158 m	22' x 520'
Sheet Density	ASTM D1505	Every Second Roll	> 0.940 g / cm <sup>3</sup>	> 0.940 g / cm <sup>3</sup>
Carbon Black Content	ASTM D4218	Every Second Roll	2.0 to 3.0 %	2.0 to 3.0 %
Carbon Black Dispersion	ASTM D5596	Every Sixth Roll	Category 1 or 2	Category 1 or 2
Tensile <sup>(1)</sup> - Yield Strength - Yield Elongation (1.3 in. gage length.)  - Break Strength - Break Elongation (2 in. gage length.)	ASTM D6693	Every Second Roll	22 kN/m 13 %  42 kN/m 700 %	127 psi 13 %  242 psi 700 %
Tear Resistance <sup>(1)</sup>	ASTM D1004	Every Sixth Roll	187 N	42 lbs
Puncture Resistance	ASTM D4833	Every Sixth Roll	540 N	121 lbs
Oven Aging <i>(High Pressure OIT, % retained after 90 days)</i>	ASTM D5721	Per Formulation	80%	80%
UV Resistance <i>(High pressure OIT, % Retained after 1600hrs)</i>	GRI-GM11	Per Formulation	50%	50%

1 - Machine direction (MD) and Cross machine Direction (XMD) average values should be on the basis of 5 test specimens each direction.

2 - Testing frequency based on standard roll dimensions and one resin batch is approximately 180,000 lbs (or one railcar)