



www.usfabricsinc.com

# Low Density Polyethylene (LLDPE)

## Textured Geomembrane Liners

PROPERTIES	TEST METHOD	TEST VALUE							
		20 MILS	30 MILS	40 MILS	50 MILS	60 MILS	80 MILS	100 MILS	120 MILS
Thickness	ASTM D-5199	20 MILS	30 MILS	40 MILS	50 MILS	60 MILS	80 MILS	100 MILS	120 MILS
Asperity Height mils (min. ave.)	GM 12	10	10	10	10	10	10	10	10
Density g/ml (max.)	ASTM D1505 / D 792	0.939	0.939	0.939	0.939	0.939	0.939	0.939	0.939
<b>Tensile Properties</b>									
- Break Strength – lb/in.	ASTM D-6693	30	45	60	75	90	120	150	180
- Break Elongation - %	Type IV	250	250	250	250	250	250	250	250
2% Modulus – lb/in. (max.)	ASTM D-5323	1200	1800	2400	3000	3600	4800	6000	7200
Tear Resistance – lb (min. ave.)	ASTM D-1004	11	16	22	27	33	44	55	66
Puncture Resistance – lb (min. ave.)	ASTM D-4833	22	33	44	55	66	88	110	132
Axi-Symmetric Break Resistance Strain - % (min.)	ASTM D-5617	30	30	30	30	30	30	30	30
Carbon Black Content - %	ASTM D-1603	2.0-3.0	2.0-3.0	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	Note (1)	Note (1)	Note (1)	Note (1)	Note (1)	Note (1)	Note (1)	Note (1)
<b>Oxidative Induction Time (OIT) (min. ave.)</b>									
- (a) Standard OIT	ASTM D-3895	100	100	100	100	100	100	100	100
- (b) High Pressure OIT	ASTM D-5885	400	400	400	400	400	400	400	400
<b>Oven aging at 85°C</b>									
- (a) Standard OIT (min. ave.) - % retained after 90 days	ASTM D-3895	35	35	35	35	35	35	35	35
- (b) High Pressure OIT (min. ave.) - % retained after 90 days	ASTM D-5885	60	60	60	60	60	60	60	60
<b>UV Resistance</b>									
- (a) Standard OIT (min. ave.)	ASTM D-3895	N.R. (2)	N.R. (2)	N.R. (2)	N.R. (2)	N.R. (2)	N.R. (2)	N.R. (2)	N.R. (2)
- (b) High Pressure OIT (min. ave.) - % retained after 1600 hrs (3)	ASTM D-5885	35	35	35	35	35	35	35	35

(1) Carbon black dispersion (only near spherical agglomerates) for 10 different views: 9 in Categories 1 or 2 and 1 in Category 3

(2) Not recommended since the high temperature of the Std-OIT test produces an unrealistic result for some of the antioxidants in the UV exposed samples.

(3) UV resistance is based on percent retained value regardless of the original HP-OIT value.

The above information is to the best of our knowledge accurate, but is not intended to be considered as a guarantee. Any implied warranty for a particular use or purpose is excluded. If the Product does not meet the above properties, and notice is given to US Fabrics, Inc., the product will be replaced or refunded. (10/2007).