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High Density Polyethylene (HDPE)

Smooth Geomembrane Liners

PROPERTIES	TEST METHOD	TEST VALUE						
		30 MILS	40 MILS	50 MILS	60 MILS	80 MILS	100 MILS	120 MILS
Thickness	ASTM D-5199	30 MILS	40 MILS	50 MILS	60 MILS	80 MILS	100 MILS	120 MILS
Density mg/l (max.)	ASTM D1505 / D 792	0.940 g/cc	0.940 g/cc	0.940 g/cc	0.940 g/cc	0.940 g/cc	0.940 g/cc	0.940 g/cc
Tensile Properties								
- Yield strength - lb/in.	ASTM D-6693 Type IV	63	84	105	126	168	210	252
- Break strength - lb/in.		114	152	190	228	304	380	456
- Yield elongation - %		12	12	12	12	12	12	12
- Break Elongation - %		700	700	700	700	700	700	700
Tear Resistance – lb (min. ave.)	ASTM D-1004	21	28	35	42	56	70	84
Puncture Resistance – lb (min. ave.)	ASTM D-4833	54	72	90	108	144	180	216
Stress Crack Resistance – hr.	ASTM D-5397 (App.)	300	300	300	300	300	300	300
Carbon Black Content (range)	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
Carbon Black Dispersion	ASTM D-5596	Note (1)	Note (1)	Note (1)	Note (1)	Note (1)	Note (1)	Note (1)
Oxidative Induction Time (OIT) (min. ave.)								
- (a) Standard OIT	ASTM D-3895	100	100	100	100	100	100	100
- (b) High Pressure OIT	ASTM D-5885	400	400	400	400	400	400	400
Oven aging at 85°C								
- (a) Standard OIT (min. ave.) - % retained after 90 days	ASTM D-3895	55	55	55	55	55	55	55
- (b) High Pressure OIT (min. ave.) - % retained after 90 days	ASTM D-5885	80	80	80	80	80	80	80
UV Resistance								
- (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)
- (b) High Pressure OIT (min. ave.) - % retained after 1600 hrs (3)	ASTM D-5885	50	50	50	50	50	50	50

(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. (1/2009).