



HD SERIES – Smooth High Density Polyethylene Geomembrane Specifications

(English Units)

		Minimum Values						
Property	Test Method	HD050	HD075	HD100	HD150	HD200	HD250	HD300
Thickness, mils	ASTM D5199							
Minimum Average		20	30	40	60	80	100	120
Lowest Individual Reading		18	27	36	54	72	90	108
Density, g/c.c.	ASTM 1505/D792	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Tensile Properties :	ASTM D6693 Type IV specimen							
1.Strength at Yield, lb/in-width	@ 2 ipm	51	63	90	142	194	227	251
2.Strength at Break, lb/in-width		78	122	162	243	324	405	507
3.Elongation at Yield, %	G.L. 1.3 inch	13	13	13	13	13	13	13
4.Elongation at Break, %	G.L. 2.0 inch	700	700	700	700	700	700	700
Tear Resistance, lb	ASTM D1004	16	23	31	47	61	73	84
Puncture Resistance, lb	ASTM D4833	40	58	79	118	158	196	235
Carbon Black Content, %	ASTM D1603	2	2	2	2	2	2	2
Carbon Black Dispersion	ASTM D5596	Cat.2	Cat.2	Cat.2	Cat.2	Cat.2	Cat.2	Cat.2
Oxidative Induction Time, min	ASTM D3895	100	100	100	100	100	100	100
		Nominal Values						
Tensile Properties :	ASTM D6693 Type IV specimen							
1.Strength at Yield, lb/in-width	@ 2 ipm	57	87	120	185	215	280	330
2.Strength at Break, lb/in-width		103	154	206	305	400	514	610
3.Elongation at Yield, %	G.L. 1.3 inch	17	17	17	17	17	17	17
4.Elongation at Break, %	G.L. 2.0 inch	800	800	800	800	800	800	800
Melt Index, g/10 min	ASTM D 1238 (190 , 2.16 kg)	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tear Resistance, lb	ASTM D1004	20	30	35	54	73	93	106
Puncture Resistance, lb	ASTM D4833	54	81	108	152	187	212	265
Carbon Black Content, %	ASTM D1603	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Carbon Black Dispersion	ASTM D5596	Cat.1	Cat.1	Cat.1	Cat.1	Cat.1	Cat.1	Cat.1
Dimensional Stability, %	ASTM D1204 (100 , 1 hour)	±1	±1	±1	±1	±1	±1	±1
Low Temperature Brittleness,	ASTM D746	< -77	< -77	< -77	< -77	< -77	< -77	< -77
ESCR, hrs	ASTM D1693	> 3000	> 3000	> 3000	> 3000	> 3000	> 3000	> 3000
		Roll Dimensions						
Roll width, ft		23	23	23	23	23	23	23
Roll Length, ft		1378	920	690	460	345	276	230
Area, ft ² /roll		31694	21160	15870	10580	7935	6348	5290
Weight, lb/roll		3080	3080	3080	3080	3080	3080	3080

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