

High Density Polyethylene (HDPE) Smooth Geomembrane

Properties	Unit	Test Method	Test Frequency	Min Average Values							
Thickness (min. ave.)	mm	D5199	per roll	0.50	0.75	1.00	1.25	1.50	2.00	2.50	3.00
Density	g/cm ³	D 792 D 1505	90,000 kg	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Tensile Properties											
- yield strength	N/mm	D 6693	9,000 kg	7	11	15	18	22	29	37	44
- break strength	%			10	20	27	33	40	53	67	80
- yield elongation	N/mm			12	12	12	12	12	12	12	12
- break elongation	%			700	700	700	700	700	700	700	700
Tear Resistance (min. ave.)	N	D 1004	20,000 kg	56	93	125	160	190	250	315	375
Puncture Resistance	N	D 4833	20,000 kg	180	240	320	400	480	640	800	960
Carbon Black Content	%	D 4218	9,000 kg	2-3	2-3	2-3	2-3	2-3	2-3	2-3	2-3
Carbon Black Dispersion	Category	D 5596	20,000 kg	in 10 different views: 9 in Categories 1 or 2 and 1 in Category 3							
Oxidative Induction Time											
- Standard OIT	minutes	D 8117	90,000 kg	100	100	100	100	100	100	100	100
- High Pressure OIT		D 5885		400	400	400	400	400	400	400	400
Oven Aging at 85° C		D 5721	per each	35	35	35	35	35	35	35	35
- Standard OIT	%	D 8117	formulation	35	35	35	35	35	35	35	35
UV Resistance		D 7238	per each	35	35	35	35	35	35	35	35
- Standard OIT	%	D 8117	formulation	35	35	35	35	35	35	35	35

Notes:

- UV Resistance is based on percent retained value regardless of the original High Pressure – OIT value.
- Roll widths and lengths have a tolerance of ±1%

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