

ProLiner® hdpe smooth geomembrane



LINING SYSTEMS

DESCRIPTION

HDPE geomembranes have a generalised use as fundamental waterproofing materials of channels, dams & containment structures. HDPE is a non polar, semicrystalline thermoplastic material with good mechanical properties, high chemical stability & electrical insulation. ProLiner HDPE does not absorb humidity, is odourless & physically inert. ProLiner HDPE geomembranes are manufactured with resins which are specially formulated & certified.

HDPE smooth geomembranes have a minimum density of 0.94 g/cm³. HDPE smooth geomembranes have very low permeability, high stress resistance, high elongation at break and good chemical and UV resistance (2-3% carbon black) for the storage of liquids & solids.

Available in rolls of up to 170m long x 8m wide for 1mm thick product. All product is available in 8m width and roll length decreases with thickness increase.

PROPERTIES	UNIT	TEST METHOD*	STANDARD 1.00MM	STANDARD 1.50MM	STANDARD 2.00MM	STANDARD 2.50MM
Thickness Average	mm	ASTM D 5199	1.0	1.50	2.00	2.50
Thickness Min (-10%)	mm	ASTM D 5199	0.90	1.35	1.80	2.25
Density (min)	g/cm³	ASTM D 792	0.94	0.94	0.94	0.94
Tensile Properties:						
Yield Strength	kN/m	ASTM D 6693 (Type IV)	15	22	29	37
Break Strength	kN/m		27	40	53	67
Yield Elongation	%		13	13	13	13
Break Elongation	%		700	700	700	700
Tear Resistance	N	ASTM D 1004	125	191	254	317
Puncture Resistance	N	ASTM D 4833	352	528	704	880
Stress Crack Resistance	Hr	ASTM D 5397	300	300	300	300
Carbon Black Content	%	ASTM D 1603	2.0-3.0	2.0-3.0	2.0-3.0	2.0-3.0
Carbon Black Dispersion	Cat	ASTM D 5596	1-2	1-2	1-2	1-2
Oxidative Induction Time (OIT)	min	ASTM D 3895	100	100	100	100
Oven Ageing at 85°C Standard OIT (90 days)	%	ASTM D5721 D3895	55	55	55	55
UV Resistance High Pressure OIT (1600 hours)	%	GM 11 ASTM D5885	50	50	50	50







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