

SEASHIELD HDPE OUTERCOVER

Material Specifications

Description

SeaShield HDPE Outercover is a smooth, high quality, high density polyethylene (HDPE) geomembrane produced from specially formulated, virgin polyethylene resin. This polyethylene resin is designed specifically for flexible geomembrane applications. It contains approximately 97.5% polyethylene, 2.5% carbon black and trace amounts of antioxidants and heat stabilizers; no other additives, fillers or extenders are used. SeaShield HDPE Outercover has outstanding chemical resistance, mechanical properties, environmental stress crack resistance, dimensional stability and thermal aging characteristics. SeaShield HDPE Outercover has excellent resistance to UV radiation and is suitable for exposed conditions.

Features

- High impact resistance
- Withstand the rigors of direct exposure to the sun and ultraviolet light
- Excellent chemical resistance
- Proven history of success

Property Specifications

Tested Property	Test Method	Frequency	Minimum Value		
			60 mil	80 mil	100 mil
Thickness, mils (mm)	ASTM D 5199	every roll	54 (1.4)	72 (1.8)	90 (2.3)
Density, g/cm ³	ASTM D 1505	200,000 lb	0.94	0.94	0.94
Tensile Properties (each direction)	ASTM D 6693, Type IV	20,000 lb			
Strength at Break, lb/in-width (N/mm)	Dumbell, 2 ipm		243 (43)	324 (57)	405 (71)
Strength at Yield, lb/in-width (N/mm)			130 (23)	173 (30)	216 (38)
Elongation at Break, %	G.L. 2.0 in (51 mm)		700	700	700
Elongation at Yield, %	G.L. 1.3 in (33 mm)		13	13	13
Tear Resistance, lb (N)	ASTM D 1004	45,000 lb	42 (187)	56 (249)	70 (311)
Puncture Resistance, lb (N)	ASTM D 4833	45,000 lb	119 (530)	158 (703)	198 (881)
Carbon Black Content, %	ASTM D 1603	20,000 lb	2.0	2.0	2.0
Notched Constant Tensile Load, hrs	ASTM D 5397,	200,000 lb	400	400	400
	Appendix				
UV Resistance ¹	ASTM D 7238		50	50	50
High Pressure OIT ² (% retained after 1600 hrs)	ASTM D 5885		50	50	50
Tabor Abrasion	ASTM 4060-07 1000 Cycles		9.8 mg	9.8 mg	9.6 mg

1 - The condition of the test should be 20 hr. UV cycle at 167°F (75°C) followed by 4 hr. condensation at 140°F (60°C).

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

