



**ENGINEERED COATED PRODUCTS REINFORCED POLYETHYLENE GEOMEMBRANE**

Physical Property	Test Method	Property of Unaged Sheet	
		Min. Average Roll Value	Typical Average Roll Value
Thickness, in. (mm) 24 mil 30 mil 36 mil	ASTM D 5199	0.021 (0.53) 0.028 (0.71) 0.035 (0.89)	0.023 (0.58) 0.029 (0.73) 0.036 (0.91)
Mass per unit area, lb/ft <sup>2</sup> (g/ft <sup>2</sup> ) (kg/m <sup>2</sup> ) 24 mil 30 mil 36 mil	ASTM D 5261	0.10 (48) (0.52) 0.13 (60) (0.65) 0.16 (78) (0.84)	0.11 (51) (0.55) 0.13 (60) (0.65) 0.17 (79) (0.85)
Breaking strength warp, lbf (kN) (grab tensile at strain rate of 12 in/min) 24 mil 30 mil 36 mil	ASTM D 751 Grab Method A	214 (0.93) 270 (1.2) 321 (1.4)	258 (1.1) 308 (1.4) 337 (1.5)
Elongation at break of fabric, % 24 mil 30 mil 36 mil	ASTM D 751	28.0 34.0 29.1	29.9 36.9 30.9
Tearing strength warp, lbf (N) (2 in/min strain rate) 24 mil 30 mil 36 mil	ASTM D 5884 (large scale "tongue tear")	109 (483) 118 (525) 134 (596)	130 (577) 129 (574) 151 (673)
Low temperature bend, °F (°C)	ASTM D 2136 1/8 in. mandrel 4 hour @ temp.	-40 (-40)	-40 (-40)
Linear Dimensional Change (shrinkage), %	ASTM D 1204 (100°C for 1 hour)	+/- 1.0 max	-0.33
Hydrostatic resistance, lb/in <sup>2</sup> or psi (MPa) (Mullen burst) 24 mil 30 mil 36 mil	ASTM D 751 Procedure A	180 (1.2) 314 (2.2) 405 (2.8)	392 (2.7) 322 (2.2) 414 (2.8)
Field seam strength, lb/in (kN/m) Seam tested in peel after weld	ASTM D4437 1 in. wide	40 (7.1)	40 (7.1)
Water vapour permeance, Perms 24 mil 30 mil 36 mil	ASTM E 96 Proc. BW	0.051 * 0.237	0.054 * 0.340
Puncture resistance, lbf (N) 24 mil 30 mil 36 mil	ASTM D 4833	68 (303) 72 (320) 95 (421)	76 (339) 81 (362) 107 (475)
Resistance to UVA weathering 1600 hrs UVA 0.72 W/m <sup>2</sup> /nm @ 340nm Cycle 20 hrs light at 75C, 4 hrs dark at 60C HPOIT before, after (percent retained) 24 mil 30 mil 36 mil	GRI GM 11 GRI GM 13	1686, 1388 (82%) 1513, 1465 (97%) 1589, 1347 (85%)	1686, 1388 (82%) 1513, 1465 (97%) 1589, 1347 (85%)

\* Not available