



**WESTERN
ENVIRONMENTAL LINER**

REINFORCED POLYPROPYLENE SPECIFICATION SHEET

Physical Property	Test Method	Property Of Unaged Sheet	Property After Aging 30 days @ 185 °F
Tolerance on nominal Thickness %	ASTM D 5199	±10	
Thickness over scrim, in (mm) 36-mil 45-mil 60 mil	ASTM D4637 Optical Method	0.010 (0.254) min. 0.013 (0.330) min. 0.018 (0.457) min.	
Mass per unit area, lb/ft ² (g/ft ²) kg/m ² 36-mil 45-mil 60 mil	ASTM D5261	0.17(77)(.83) typical 0.21(95)(1.03) typical 0.29(132)(1.42) typical	
Breaking strength, lbf(kN) (grab tensile at strain rate of 12in./min) 36-mil 45 & 60-mil	ASTM D 751 Grab Method A	200 (0.9) min 260 typ. 250 (1.1) min 300 typ.	200(0.9) min 260 typ. 250(1.1) min 300 typ.
Elongation at break of fabric, %	ASTM D 751	25 typical	25 typical
Tearing strength, lbf (N) (2 in./min. strain rate) 36-mil 45 & 50-mil	ASTM D 5884 (max. load)	80(356)min. 130(578) typ 100(445)min. 160(723) typ.	
Low temperature flexibility, °F (°C)	ASTM D 2136 1/8 mandrel 4 hour @ temp	-40(-40) max. -50(-46) typical	
Linear Dimensional Change (shrinkage),%	ASTM D 1204		±1.0 max. -0.5 typical
Ozone resistance, 100 pphm, 168 hours	ASTM D 1149	No cracks	No cracks
Resistance to water (distilled) absorption After 30 days immersion 122 °F (50 °C) Change in mass %	ASTM D 471 (coating compound)	1.0 max 0.5 typical	
Hydrostaic resistance, lbf/in. ² or psi (Mpa) (Mullen burst) 36-mil 45-mil 60-mil	ASTM D 751 Procedure A	350 (2.4) min 400 (2.8) typical 450(3.1) typical 500(3.4) typical	350 (2.4) min 400 (2.8) typical 450(3.1) typical 500(3.4) typical
Field seam strength, lbf/in.(kN/m) Seam tested in peel after weld	ASTM D 4437 1 in. wide	30(5.3) min. 60(10.5) typical	
Water vapor permeance, Perms	ASTM E 96	0.10 max 0.05 typical	
Puncture resistance, lbf (N) 36-mil & 45 mil 60 mil	ASTM D 4833 (index puncture)	85(378) min. 110(489) typical 120(534) typical	
Resistance to Xenon-arc weathering Xenon-Arc, 15,120 kJ/m ² total radiant Exposure, visual condition at 10K	ASTM G 155 .70 W/m ² 80 °C B.P.T.	No cracks No loss of breaking Or tearing Strength	