



WESTERN
ENVIRONMENTAL LINER

45mil REINFORCED POLYPROPYLENE

RPP Specification Sheet

A fusion-weldable polyester reinforced sheet designed for floating covers, [liners](#) and caps, specifically formulated for long-term use in both buried and exposed [applications](#). The [membrane](#) is based on a UV-stabilized polypropylene co-polymer, which does not require polymeric or liquid plasticizers to maintain flexibility.

Physical Property	Test Method	Property Of Unaged Sheet	Property After Aging 28 days @ 176°F
Tolerance on nominal Thickness	ASTM D 751	±10%	
Thickness over scrim	ASTM D 4637 Optical Method	0.013 in (0.330 mm)	
Mass per unit area	ASTM D5261	0.21 lb/ft ² or 95 g/ft ² or 1.03 kg/m ² typical	
Breaking strength	ASTM D 751 Grab Method	250 lbf (1.1 kN) min. 300 lbf typical	250 lbf (1.1 kN) min. 300 lbf typical
Elongation at break of fabric	ASTM D 751	25% typical	25% typical
Tearing Strength	ASTM D 5884 Tongue Tear	100 lbf (445 N) min 160 lbf (712 N) typical	
Low temperature flexibility	ASTM D 2136 1/8 in. mandrel 4 hour @ temp.	-40°F (-40°C) max -50°F (-46°C) 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	
Hydrostatic Resistance (Mullen Burst)	ASTM D 751 Procedure A	350 lbf/in ² or psi (2.4 MPa) min. 450 lbf/in ² or psi (3.1MPa) typical	350 lbf/in ² or psi (2.4 MPa) min 450 lbf/in ² or psi (3.1 MPa) typical
Field seam strength Seam tested in peel after weld	ASTM D 1876	30 lbf/in (5.25 kN/m) min.	
Water vapor permeance	ASTM E 96	0.10 perms max. 0.05 perms typical	
Puncture resistance	ASTM D 4833 (index puncture)	85 lbf (378 N) min. 110 lbf (489 N) Typical	
Resistance to xenon-arc weathering ² Xenon-Arc, 10, 080 kJ/m ² total radiant exposure, visual condition at 10X	ASTM G 155 0.70 W/m ² 80° C B.P.T.	No Cracks No loss of breaking or tearing strength	

²Approximately equivalent to 12, 000 hours exposure at 0.35 W/m² irradiance. B.P.T is black panel temperature. 3/06