

45 mil Polypropylene Geomembrane – Physical Properties

Physical Property	Test Method	Standard	Metric
Thickness (±10 %)	N/A	45-mil	1.1 mm
Type of Coating	N/A	Polypropylene	
Coating Distribution	N/A	50/50	
Breaking Strength, lbf (kN) Warp (MD) Fill (TD)	ASTM D 751A	300 lbs 250 lbs	1330 N 1110 N
Tearing Strength Warp (MD) Fill (TD)	ASTM D751 B (mod)	70 lbs 70 lbs	311 N 311 N
Wide Width Strength Warp (MD) Fill (TD)	ASTM D4885	150 lbs/in 125 lbs/in	262 N/cm 219 N/cm
Hydrostatic resistance	ASTM D751A	350 psi	2.4 MPa
Puncture Resistance	FTMS 101C, 2031	300 lbs	1330 N
Ply Adhesion	ASTM D751 (mod)	40 lbs/2 in *	178 N/5 cm *
Dimensional Stability	ASTM D 1204	1 % max	1 % max
Low Temperature	ASTM D 2136	-40 °F	-40 °C
Abrasion Resistance (H18 / 1kg)	ASTM D3884	7,500 cycles	7,500 cycles
Stress Crack Resistance	ASTM D1693	3,000 hrs	3,000 hrs
UV Resistance (black)	ASTM G154	35,000 hrs	35,000 hrs
Ozone Resistance (100 pphm, 14 days)	ASTM D 1149	No Cracks	No Cracks
Bonded Seam Strength	ASTM D751, NSF Mod	200 lbs	890 N
Peel Adhesion	ASTM D413	20 lbs/in *	35 N/cm *

*Ply adhesion and Peel adhesion testing may result in a film tearing bond (FTB) if the strength between layers is greater than the strength of the material itself.

A variety of standard widths and colors are available including **NSF 61 certified** material.