

Landfill Liners Technical Specifications

Parameter	HDPE Liner	LLDPE Liner	PVC Liner
Thickness Range	0.75-3.0 mm	0.5-2.5 mm	0.5-2.0 mm
Density (g/cm³)	0.94-0.97	0.91-0.94	1.18-1.22
Tensile Strength	≥25 MPa (MD & TD)	≥20 MPa (MD & TD)	≥17 MPa (MD & TD)
Elongation at Break	≥700%	≥800%	≥300%
Permeability	≤1×10 ⁻¹³ cm/s	≤5×10 ⁻¹² cm/s	≤1×10 ⁻¹² cm/s
Puncture Resistance	≥500 N	≥400 N	≥600 N
Temperature Range	-60°C to +80°C	-70°C to +90°C	-40°C to +60°C
UV Resistance	12+ months (with carbon black)	6-9 months	6-12 months
Chemical Resistance	Excellent (pH 1-14)	Good (pH 2-12)	Moderate (pH 3-10)
Standard Compliance	ASTM D4437, GRI-GM13	ASTM D4437	EPA Subtitle D
Panel Width	5-8 m	5-7 m	2-4 m
Service Life	30+ years	20-25 years	15-20 years