

# ENVIRO LINER® 1000 - GEOMEMBRANE

With its exceptional flexibility and endurance properties, Layfield's Enviro Liner® (EL) brand of geomembranes has been a trusted performer in our portfolio for many years. Available in four unique formulations, this series of geomembranes offers solutions for a wide range of containment applications.

Enviro Liner® 1000 is a flexible membrane liner developed for the containment of drilling fluids and water used in hydraulic fracturing operations.

April 2023		Enviro Liner® 1000			
Rev	ASTM	Enviro Liner® 1020	Enviro Liner® 1030	Enviro Liner® 1040N	Enviro Liner® 1040
Thickness	D5199	20 mil 0.5 mm	30 mil 0.75 mm	36 mil 0.91 mm	40 mil 1.0 mm
Density (typical)	D792	0.93	0.93	0.93	0.93
Tensile Strength at Break	D6693	76 ppi 13 N/mm	114 ppi 20 N/mm	136 ppi 24 N/mm	152 ppi 27 N/mm
Elongation	D6693	800%	800%	700%	800%
Tear Resistance	D1004	11 lbs 49 N	16 lbs 70 N	19 lbs 84 N	22 lbs 100 N
Puncture Resistance	D4833	29 lbs 120 N	42 lbs 190 N	54 lbs 240 N	56 lbs 250 N
Carbon Black Content	D6370	≥ 2.0%	≥ 2.0%	≥ 2.0%	≥ 2.0%
High Pressure OIT	D5885	400 min	400 min	N/A	400 min
Low Temperature Impact Resistance	D746	-69°F -56°C	-69°F -56°C	-40°F -40°C	-69°F -56°C
Service Temperatures	Max Continuous Use	140°F 60°C	140°F 60°C	140°F 60°C	140°F 60°C

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## Enviro Liner® 1000 Shop Seam Strengths

Style	ASTM D6392	Enviro Liner® 1020	Enviro Liner® 1030	Enviro Liner® 1040N	Enviro Liner® 1040
Heat Bonded Seam Strength	25.4 mm (1") Strip	30 ppi 5.2 N/mm	45 ppi 7.7 N/mm	50 ppi 8.7 N/mm	60 ppi 10.3 N/mm
Peel Adhesion Strength (Wedge Welded)	25.4 mm (1") Strip	25 ppi 4.3 N/mm	38 ppi 6.5 N/mm	45 ppi 7.9 N/mm	50 ppi 8.7 N/mm

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## Enviro Liner® 1000 Field Seam Strengths

Style	ASTM D6392	Enviro Liner® 1020	Enviro Liner® 1030	Enviro Liner® 1040N	Enviro Liner® 1040
Heat Bonded Seam Strength	25.4 mm (1") Strip	30 ppi 5.2 N/mm	45 ppi 7.7 N/mm	50 ppi 8.7 N/mm	60 ppi 10.3 N/mm
Peel Adhesion Strength (Wedge Welded)	25.4 mm (1") Strip	22 ppi 3.8 N/mm	34 ppi 5.9 N/mm	40 ppi 7.0 N/mm	44 ppi 8.7 N/mm

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