

High Density Polyethylene (HDPE) is one of the most widely used geomembranes in the world due to its availability and relatively inexpensive material cost. HDPE is an excellent product for large applications that require broad range chemical resistance and/or UV and Ozone resistance, making it an ideal membrane for both long and short-term exposed applications at an economical price.

- Landfill Liners
- Gas Collection Covers
- Waste Water Lagoons
- Heap Leach Pads
- Animal Waste Lagoon
- Irrigation Reservoirs
- Mine Tailings
- Canal Lining

Certified Properties – GRI GM 13	ASTM	30 mil	40 mil	60 mil
Thickness Lowest individual of 10 values	D-5199	30 -10%	40 -10%	60 -10%
Formulated Density (min. ave.)	D-1505/ D-792	0.940 g/cc	0.940 g/cc	0.940 g/cc
Tensile Properties (min. ave.) Yield Strength Break Strength Yield Elongation Break Elongation	D-6693 Type IV	63 lb/in 114 lb/in 12% 700%	84 lb/in 152 lb/in 12% 700%	126 lb/in 228 lb/in 12% 700%
Tear Resistance (min. ave.)	D-1004	21 lb	28 lb	42 lb
Puncture Resistance (min. ave.)	D-4833	54 lb	72 lb	108 lb
Stress Crack Resistance	D-5397	500 hr.	500 hr.	500 hr.
Carbon Black Content (range)	D-4218	2.0-3.0%	2.0-3.0%	2.0-3.0%
Oxidative Induction Time (OIT) (min. ave.) (a) Standard OIT Or (b) High Pressure OIT	D-3895 D-5885	100 min. 400 min.	100 min. 400 min.	100 min. 400 min.
Oven Aging at 85°C (a) Standard OIT (min. ave.) – % retained after 90 days Or (b) High Pressure OIT (min. ave.) – % retained after 90 days	D-5721 D-3895 D-5885	55% 80%	55% 80%	55% 80%
UV Resistance (a) Standard OIT (min. ave.) Or (b) High Pressure OIT (min. ave.) – % retained after 1600 hrs	D-7238 D-3895 D-5885	N.R.* 50%	N.R.* 50%	N.R.* 50%

*Not recommended since the high temperature of the Std-OIT test produces an unrealistic result for some of the antioxidants in the UV exposed samples.