

High Density Polyethylene (HDPE) is one of the most widely used geomembranes in the world due to its availability and relatively inexpensive material cost. Textured HDPE is an excellent product for large applications that require high friction angle properties due to steep slopes. Due to its strong chemical, UV and Ozone resistance, HDPE is an ideal membrane for both long and short-term exposed applications.

- Landfill Bottom Liners
- Leachate Collection Ponds
- Waste Water Treatment Lagoons
- Heap Leach Pads
- Animal Waste Lagoons
- Irrigation Reservoirs
- Mine Tailings
- Canal Lining

Certified Properties	ASTM	30 mil	40 mil	60 mil
Thickness	D-5994	30	40	60
Lowest individual of 10 values		-15%	-15%	-15%
Asperity Height mils (min. ave.)	D-7466	16 mil	16 mil	16 mil
Formulated Density (min. ave.)	D-1505	0.940 g/cc	0.940 g/cc	0.940 g/cc
Tensile Properties (min. ave.)	D-6693			
Yield Strength	Type IV	63 lb/in	84 lb/in	126 lb/in
Break Strength		45 lb/in	60 lb/in	90 lb/in
Yield Elongation		12%	12%	12%
Break Elongation		100%	100%	100%
Tear Resistance (min. ave.)	D-1004	21 lb	28 lb	42 lb
Puncture Resistance (min. ave.)	D-4833	45 lb	60 lb	90 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	D-3895	100 min.	100 min.	100 min.
Or				
(b) High Pressure OIT	D-5885	400 min.	400 min.	400 min.
Oven Aging at 85°C	D-5721			
(a) Standard OIT (min. ave.) – % retained after 90 days	D-3895	55%	55%	55%
Or				
(b) High Pressure OIT (min. ave.) – % retained after 90 days	D-5885	80%	80%	80%
UV Resistance	D-7238			
(a) Standard OIT (min. ave.)	D-3895	N.R.*	N.R.*	N.R.*
Or				
(b) High Pressure OIT (min. ave.) – % retained after 1600 hrs	D-5885	50%	50%	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.