

Wavin

Linear low-density polyethylene (LLDPE) Geo-Membranes

Product description

This product is supplied by Wavin as part of the **StormForce** offering for the purposes of lining attenuation tanks. When managed and installed in the correct manner this product will have a design life in excess of 50yrs. The most regularly used product for attenuation tanks is the 0.75mm liner. Please ensure the correct product has been selected for use within the site specific parameters.

Geo-Membrane

Characteristic	Test Method	Unit	Thickness					
			0.75mm	1.0mm	1.5mm	2.0mm	2.5mm	3.0mm
Material Properties								
Material	DSC analysis		High Density Polyethylene (HDPE)					
Width		m	5.1	5.1 or 8.0				
Length		m	100	200	150	120	100	85
Additional Properties								
Thickness (min. ave.) <small>Lowest individual of 10 values</small>	ASTM D 5199	mm	0.75 (-10%)	1.0 (-10%)	1.5 (-10%)	2.0 (-10%)	2.5 (-10%)	3.0 (-10%)
Density (min)	ASTM D 1505	g/cm ³	0.940					
Tensile Properties (min. ave.)	ASTM D 6693 type IV							
Yield Strength		kN/m	12.00	17.00	25.00	33.00	42.00	48.00
Break Strength		kN/m	24.00	30.00	45.00	58.00	75.00	85.00
Yield Elongation		%	12.00	12.00	12.00	12.00	12.00	12.00
Break Elongation		%	700.00	750.00	750.00	750.00	750.00	750.00
Tear Resistance (min. ave.)	ASTM D 1004	N	100	130	190	280	340	380
Puncture Resistance (min. ave.)	ASTM D 4833	N	250	350	550	700	850	1000
Stress Crack Resistance	ASTM D 5397	hr.	500	500	500	500	500	500
Carbon Black Content	ASTM D 4218/6370	%	2-3	2-3	2-3	2-3	2-3	2-3
Carbon Black Dispersion	ASTM D 5596	Category	min. 9 in Categories 1 or 2 and max. 1 in Category 3					
Oxidative Induction Time (OIT) (min. ave.)								
Standard OIT	ASTM D 3895	min.	100	100	100	100	100	100
High Pressure OIT	ASTM D 5885		-	400	400	400	400	400
Oven Aging at 85 °C								
Standard OIT (min. ave.) % retained after 90 days	ASTM D 5721 ASTM D 3895	%	55	55	55	55	55	55
High Pressure (min. ave.) % retained after 90 days	ASTM D 5885		-	80	80	80	80	80
UV Resistance								
High Pressure OIT (min. ave.) % retained after 1600 hours	ASTM D 7238 ASTM D 5885	%	-	50	50	50	50	50