



DRILINE® Textured (LLDPE) - Product Data Sheet : Embossed

Ultraflex is a black, high quality, linear low density polyethylene (L.L.D.P.E.) geomembrane produced from specially formulated, virgin polyethylene resin with outstanding flexibility. The polyethylene resin is designed specifically for flexible geomembrane applications. Its high uniaxial and multiaxial elongation characteristics make it very suitable for applications where differential or localized subgrade settlements are expected such as landfill closure cappings, leach pads, or any application where elongation or puncture resistance is critical. Ultraflex contains approximately 97.5% polyethylene, 2.5% carbon black and trace amounts of antioxidants and heat stabilizers. Ultraflex has excellent resistance to UV radiation and is suitable for exposed applications.

Property	Standard		Unit	1.00mm	1.50mm	2.00mm	≥2.50mm
	DIN OEN EN ISO	ASTM					
Nominal thickness	DIN 53 370		%	≤±10	≤±10	≤±10	≤±10
Density (black)	ISO 1183	D792	g/cm ³	≤0.939	≤0.939	≤0.939	≤0.939
MFR Melt Flow Rate	ISO 1133/18 (190 °C/5kg)	D1238 (190° C/2.16kg)	g/10min	1.6-2.9	1.6-2.9	1.6-2.9	1.6-2.9
Heat Reversion (100° /1h)	OENORM	D1204	%	≤2.0	≤2.0	≤2.0	≤2.0
Tear Resistance	DIN 53 363	D1002	N	200	300	400	500
			N	100	150	200	250
Multiaxial Tension	O ENORM S 2073		%	≥15	≥15	≥15	≥15
Tensile Stress at Yield	ISO 527	D 638	N/mm ²	≥15	≥15	≥15	≥15
Elongation at Yield	ISO 527	D 638	%	≥11	≥11	≥11	≥11
Elongation at Break	ISO 527	D 638	%	≥300	≥400	≥400	≥400
Puncture Resistance	DIN 16 726 (Drop Test)			≥450	≥800	≥1500	≥2000
		D 4833	N	200	300	400	500
Low Temperature Brittleness	DIN 16 726	D 746	°C	-20	-20	-20	-20
Water Absorption	DIN 53 495	D 570	%	≤0,1	≤0,1	≤0,1	≤0,1
Root Resistance	OENORM S 2073			Fulfilled*	Fulfilled*	Fulfilled*	Fulfilled*
Microorganism	OENORM S 2073			Fulfilled*	Fulfilled*	Fulfilled*	Fulfilled*
Resistance Root Resistance	OENORM S 2073			Fulfilled*	Fulfilled*	Fulfilled*	Fulfilled*
Resistance to Leachate	OENORM S 2073	D 3083	%	Dimensional change ≤5 change of mechanical properties ≤20			
ESCR-Behaviour		D 1693	(h)	>2000	>2000	>2000	>2000
Carbon Black Content	ISO 6964	D 1693	%	≥2	≥2	≥2	≥2
Carbon Black Dispersion	ISO 11420	D 5596		A - 2	A - 2	A - 2	A - 2

The data in this table are approximate values and based upon results of the internal inspection, data of raw material suppliers as well as tests in the course of approval procedures and external inspections. The results can differ slightly from the indicated mean values in longitudinal and transverse direction and due to different nominal thicknesses and raw materials. In any case requirements relating to a special project (tender documents) have to be agreed with Aquatan.

Independent of the indicated test standards, internal tests and on test certificates are generally carried out in accordance with the appropriate test procedures according to OENORM (Austrian Standard) resp. DIN (German Standard) or EN ISO.

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