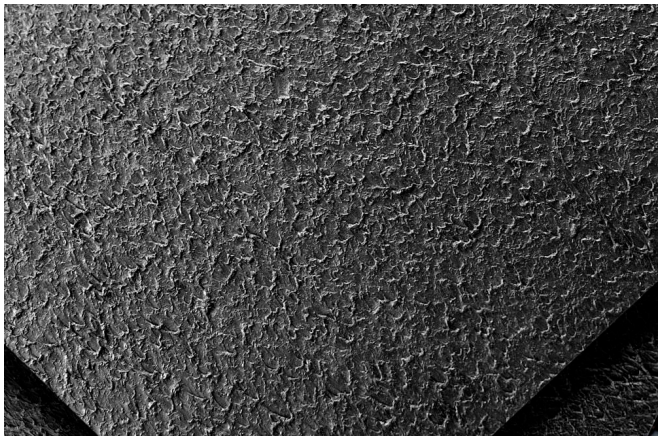
Specialist Geomembranes

Technical Data sheet

Landflex™ PE-LLT Textured Finish

Single or both sides



A high quality, single layer LLDPE suitable for use as a barrier membrane on brownfield sites, petrol stations, coalfields, landfill & contaminated industrial areas. The material is highly suited to attenuation ponds, lagoons, water features & as a high peformance damp proof membrane because of its high puncture resistance. The membrane offers protection from Carbon Dioxide, Methane and Radon as well as certain common hydrocarbons.

All Landflex™ PE-LL geomembranes are certified according to the relevant European Standards:
EN13361, EN13362, EN13491, EN13492, EN13493, EN15382 & EN13967

The information herein is based upon data obtained by the manufacturer and is considered accurate. However, no warranty is expressed or implied regarding the accuracy of this data. This information is furnished upon the condition that the person receiving it shall evaluate its suitability for the specific application.

Tested Property	Unit	Test Method	Values (*)			
Thickness [a]	mm	ASTM D 5994	1.0	1.5	2.0	2.5
Density	g/cm³	ASTM D 792	≤0.939	≤0.939	≤0.939	≤0.939
Tensile Properties (each direction) (Minimum Average) Stress at break Elongation at break	 N/mm %	ASTM D 638/6693 Type IV: 200 mm/min: lo=50mm	 33 (27) 950 (800)	 50 (40) 950 (800)	 66 (53) 950 (800)	 82 (66) 950 (800)
Tear Resistance	N	ASTM D 1004	110 (100)	165 (150)	220 (200)	275 (250)
Puncture Resistance	N	ASTM D 4833	320 (250)	430 (370)	550 (500)	660 (620)
Carbon Black Content	%	ASTM D 4218	2.0 - 3.0	2.0 - 3.0	2.0 - 3.0	2.0 - 3.0
Carbon Black Dispersion	Category	ASTM D 5596	1/2[b]	1/2[b]	1/2[b]	1/2[b]
Dimesional Stability (each direction)	%	ASTM D 1204 (100°C/1h)	±2	±2	±2	±2
Melt Flow Index [c]	g/10min	ASTM D 1238 (190°C / 5.00kg) (190°C / 2.16kg)	 ≤ 3.0 ≤ 1.0	 ≤ 3.0 ≤ 1.0	 ≤ 3.0 ≤ 1.0	 ≤ 3.0 ≤ 1.0
Asperity Height (each side) (Minimum Average)	mm	ASTM D 7466	0.40[d]	0.40[d]	0.40[d]	0.40[d]
Oxidative Induction Time (OIT)	min	ASTM D 3895 (200°C: Pure O_2: 1atm)	≥ 100	≥ 100	≥ 100	≥ 100

BUTEK Tanks
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Reference Property						
Multiaxial Elongation at Break	%	similar to ASTM D 5617 Ø=500mm	70	70	70	70
Low Temperature Brittleness	°C	ASTM D 746	-77	-77	-77	-77
UV Resistance [e] HP-OIT retained after 1600 hrs [f]	%	ASTM D 7238 ASTM D 5885	≥ 35	≥ 35	≥ 35	≥ 35
Roll Width (approx.)[g]	m	---	6.9 - 7.5			7.0
Surface	---	---	Single sided or doubled sided textured			

NOTES:
(*) All values - unless otherwise noted - are nominal values. Values in brackets are minimum values within the 95% confidence interval
(a) Tolerance ± 10% for the lowest individual reading - Special thickness availabale upon request
(b) Dispersion only applies to near spherical agglomerates. 9 of 10 views shall be category 1 or 2. No more than 1 view from category 3.
(c) Standard test conditions: 190°C / 5.0 kg
(d) 8 out of 10 readings mustbe ≥0.35mm and lowest individual reading must be ≥ 0.30mm
(e) Test conditions: 20 hours UV cycle at 75°C followed by 4 hours condensation at 60°C
(f) UV Resistance is based on percent retained value regardless of the original High Pressure - OIT value
(g) Roll widths and lengths have a tolerance of ± 1%



Example application: Landfill, Scotland, textured upper and smooth underside membrane.

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