

Specialist Geomembranes



Technical Data sheet

Landflex™ PE-HD Smooth Finish



A high quality, single layer HDPE 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 performance 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-HD 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	Frequency	Values (*)					
Thickness (a)	mm	ASTM D 5199	Every Roll	0.75	1.00	1.50	2.00	2.50	3.00
Density	g/cm ³	ASTM D 792	90,000kg	≤0.94	≤0.94	≤0.94	≤0.94	≤0.94	≤0.94
Tensile Properties (each direction) (Minimum Average)		ASTM D 6693 Type IV							
Strength at break	N/mm	Dumbell, 2 imp	9,000kg	19	26	38	50	64	76
Strength at yield	N/mm			10	14	21	28	35	38
Elongation at break	%	G.L 2.0 in (50mm)		700	700	700	700	700	700
Elongation at yield	%	G.L 1.3 in (33mm)		12	12	12	12	12	13
Tensile Properties (each direction) (Minimum Average)		ASTM D 638/6693 Type IV:							
Strength at break	N/mm	50mm/min		-	-	-	-	-	100
Strength at yield	N/mm	lo = 33mm							48
Elongation at break	%	50mm/min							800
Elongation at yield	%	lo = 50mm							16
Tear Resistance (min. avge)	N	ASTM D 1004	20,000kg	88	119	178	237	295	420
Puncture Resistance (min. avge)	N	ASTM D 4833	20,000kg	228	304	456	608	760	980
Carbon Black Content	%	ASTM D 4218	9,000kg	2.0 - 3.0	2.0 - 3.0	2.0 - 3.0	2.0 - 3.0	2.0 - 3.0	2.0 - 3.0
Carbon Black Dispersion	Category	ASTM D 5596	20,000kg	Note ^(b)	1/2 ^(b)				
Dimesional Stability (each direction)	%	ASTM D 1204 (120°C/1h)	-	-	-	-	-	-	±2
Melt Flow Index (c)	g/10min	ASTM D 1238 (190°C / 5.00kg) (190°C / 2.16kg)	-	-	-	-	-	-	≤ 3.0 ≤ 1.0



Butyl Products Ltd.
Lingfield House, 11 Radford Crescent, Billericay,
Essex, CM12 0DW, United Kingdom.
T: +44 (0) 1277 653 281
E: enquiries@butylproducts.co.uk W: butylproducts.co.uk
E: enquiries@butek-landline.co.uk W: butek-landline.co.uk

Butek Landline

Containment Solutions

Spec. 22 Rev. D

Specialist Geomembranes



Technical Data sheet

Landflex™ PE-HD Smooth Finish

Reference Property			0.75	1.00	1.50	2.00	2.50	3.00	
Stress crack resistance (NCTL)	hr	ASTM D 5397, appendix	≥ 500	≥ 500	≥ 500	≥ 500	≥ 500	≥ 500	
Oxidative induction time (OIT) Min.	°C	ASTM D 3895 (200C, O2, 1atm)	>100	>100	>100	>100	>100	≥100	
UV Resistance ^(d) HP-OIT retained after 1600 hrs ^(a)	%	ASTM D 7238 ASTM D 5885	≥ 50	≥ 50	≥ 50	≥ 50	≥ 50	≥ 50	
Standard container, roll	Ea	---	15	15	15	15	15		
Roll Area ^(f)	m ²	---	1960	1575	1050	770	595	525	
Roll length ^(f)	m	---	280	255	150	110	85	70	
Roll Width (approx.) ^(f)	m	---	7.0					7.5	
Surface	---	---	Double Sided Smooth						

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 available upon request

(b) Dispersion only applied 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) Test conditions: 20 hours UV cycle at 75°C followed by 4 hours condensation at 60°C

(e) UV Resistance is based on percent retained value regardless of the original High Pressure - OIT value

(f) Roll widths and lengths have a tolerance of ± 1%



Gas membrane installation for a retail outlet in Liverpool



Butyl Products Ltd.

Lingfield House, 11 Radford Crescent, Billericay,
Essex, CM12 0DW, United Kingdom.

T: +44 (0) 1277 653 281

E: enquiries@butylproducts.co.uk W: butylproducts.co.uk

E: enquiries@butek-landline.co.uk W: butek-landline.co.uk

Butek Landline

Containment Solutions

Spec. 22 Rev. D