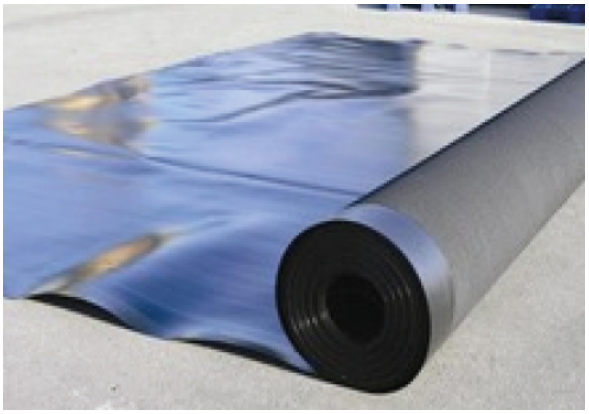
Specialist Geomembranes

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	1.50
Density	g/cm³	ASTM D 792	90,000kg	≤0.94
Tensile Properties (each direction) (Minimum Average)		ASTM D 6693 Type IV	9,000kg	
Strength at break	N/mm	Dumbell, 2 imp		38
Strength at yield	N/mm			21
Elongation at break	%	G.L 2.0 in (50mm)		700
Elongation at yield	%	G.L 1.3 in (33mm)		12
Tensile Properties (each direction) (Minimum Average)		ASTM D 638/6693 Type IV:		-
Strength at break	N/mm	50mm/min		
Strength at yield	N/mm	lo = 33mm		
Elongation at break	%	50mm/min		
Elongation at yield	%	lo = 50mm		
Tear Resistance (min. avge)	N	ASTM D 1004	20,000kg	178
Puncture Resistance (min. avge)	N	ASTM D 4833	20,000kg	456
Carbon Black Content	%	ASTM D 4218	9,000kg	2.0 - 3.0
Carbon Black Dispersion	Category	ASTM D 5596	20,000kg	Note[b]
Dimesional Stability (each direction)	%	ASTM D 1204 (120°C/1h)	-	-
Melt Flow Index [c]	g/10min	ASTM D 1238 (190°C / 5.00kg) (190°C / 2.16kg)	-	-



BUTEK Tanks
BUTEK Landline

Specialist divisions of Butyl Products Ltd
T: +44 (0) 1277 653 281
E: enquiries@butektanks.co.uk W: butektanks.com
E: enquiries@butek-landline.co.uk W: buteklandline.co.uk

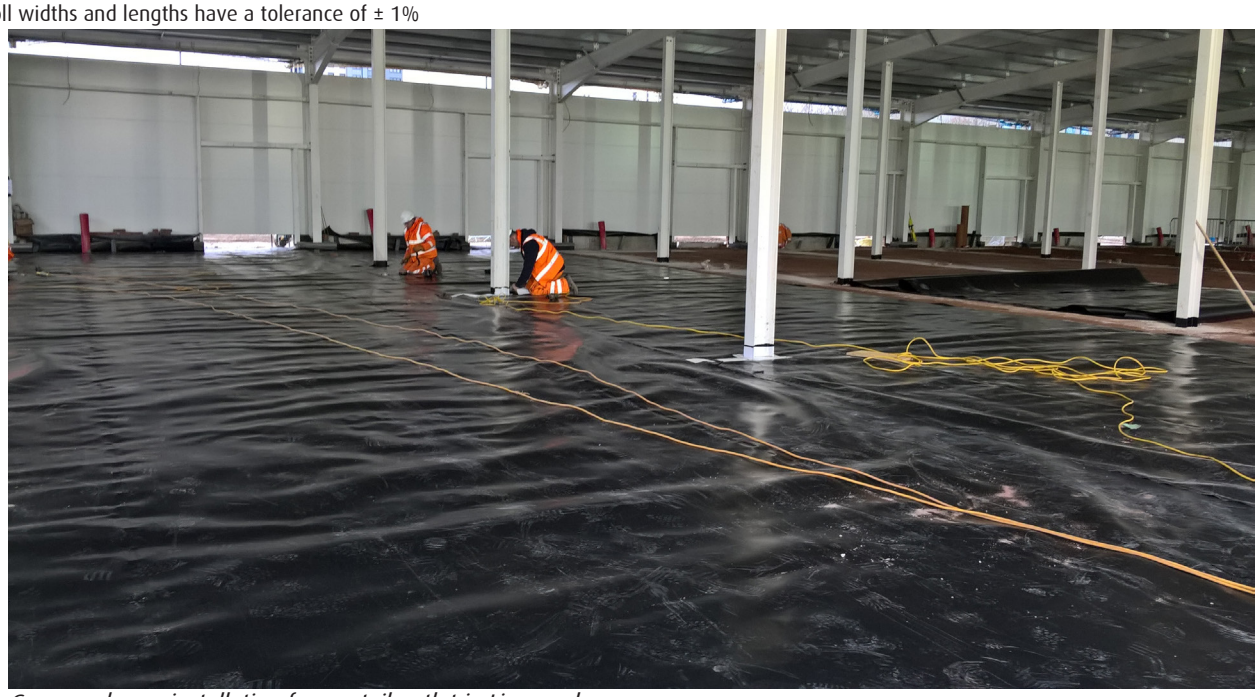
Specialist Geomembranes

Technical Data sheet

Landflex™ PE-HD Smooth Finish

Reference Property			1.50
Stress crack resistance (NCTL)	hr	ASTM D 5397, appendix	≥ 500
Oxidative induction time (OIT) Min.	°C	ASTM D 3895 (200C, O2, 1atm)	>100
UV Resistance [d] HP-OIT retained after 1600 hrs [a]	%	ASTM D 7238 ASTM D 5885	≥ 50
Standard container, roll	Ea	---	15
Roll Area[f]	m^2	---	1050
Roll length[f]	m	---	150
Roll Width (approx.)[f]	m	---	7.0
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 availabale 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

BUTEK Tanks
BUTEK Landline

Specialist divisions of Butyl Products Ltd
T: +44 (0) 1277 653 281
E: enquiries@butektanks.co.uk W: butektanks.com
E: enquiries@butek-landline.co.uk W: buteklandline.co.uk