Specialist Geomembranes

Technical Data Sheet

Landflex™ ES

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.





Example Application:

The Landflex™ ES liner material was utilised in the installation of a storm water auxiliary tank for a UK based water company.

Characteristic	Test Method	Typical Properties (indicative)
Fabric	-	100% PES / 1100dtex
Total Weight	ASTM D751	1000g / m^2
Thickness	ASTM D751	0.90mm
Lacquering	-	1 / 1
Embossing	-	DP
Breaking Strength (strip method) Warp	ASTM D751	3500N
Breaking Strength (strip method) Weft	ASTM D751	3500N
Breaking Yield Strength (grab tensile) Warp	ASTM D751	3000N
Breaking Yield Strength (grab tensile) Weft	ASTM D751	3000N
Bonded Seam Strength Warp	ASTM D751 modified by NSF 54	3000N
Bonded Seam Strength Weft	ASTM D751 modified by NSF 54	3000N
Tear Strength (tongue tear) Warp	ASTM D751	500N
Tear Strength (tongue tear) Weft	ASTM D751	400N
Adhesion Ply (film tearing 2"/min)	ASTM D413	130N / 5cm
Adhesion (heat sealed seam)(dielectric weld)	ASTM D751	150N / 5cm
Abrasion (cy before fabric exposure)	5306 Tabier Fed. Std. 191A H 18 Wheel 1000G	2000cy
Abrasion (max weight loss)	5306 Tabier Fed. Std. 191A H 18 Wheel 1000G	50mg / 100cy
Puncture Resistance	ASTM D4833	1150N
Bursting Strength (ball tip)	ASTM D751	2950N
Low Temperature (4hrs - 1/8" Mandrel)	ASTM D2136	-35C / -30F No Cracking

BUTEK Tanks
BUTEK Landline

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Landflex™ ES



Characteristic	Test Method	Typical Properties (indicative)
Dimensional Stability (100C - 1hr) Warp	ASTM D1204	<1%
Dimensional Stability (100C - 1hr) Weft	ASTM D1204	<1%
Hydrostatic Resistance	ASTM D751-A	>540N / cm^2 / >8000psi
Weathering Resistance. No appreciable changes or stiffening / cracking of coating	Carbon ARC / Atlas Weather-o-Meter	8000hrs
Water Absorption (7 days - 21C)	ASTM D471-12	<0.07 kg/m^2
Coefficient of Thermal Expansion / Contraction	ASTM D696	<1.8 x 10-5cm / C

Chemical Resistance

A: Little to minor effect, B: Minor to moderate effect, X: Not recommended, D: No data available

Acetic Acid 5%	A	Kerosene	A	Phosphoric Acid 100%	X
Ammonium Phosphate	A	Magnesium Chloride	A	Phthalate Plasticiser (DOP)	X
Ammonium Hydroxide	A	Magnesium Hydroxide	A	Sodium Acetate Solutions	A
Ammonium Sulphate	A	Methanol	A	Sodium Bisulphate Solution	A
Antifreeze (Ethylene Glycol)	A	Mineral Spirits	A	Sodium Phosphate	A
Benzene	X	Nitric Acid 5%	A	Sodium Hydroxide 60%	A
Butanone	A	Nitric Acid 50%	X	Sulphuric Acid 50%	A
Calcium Chloride Solution	A	Oil: ASTM type 3	A	Toluene	X
Calcium Hydroxide	A	Oil: Animal	A	Turpentine	A
Chlorine Solution 20%	A	Oil: Vegetable	A	Vinegar	A
Clorox (Bleaching Agent)	A	Oil: Hydraulic, Petroleum	A	Water - Potable 23C	A
Diesel	A	Oil: Hydraulic, Phosphate esther	X	Water - Sea 23C	A
Ethanol	A	Oil: Corn	A	Water - Salt 25% 23C	B
Ethyl Acetate	X	Oil: Crude	A	Xylene	X
Fertiliser Solution	A	Oil: Raw Linseed	A	Zinc Chloride	A
Glycerine	A	Oil: SAE-30	A		
Glycol	A	Oil: Transformer	A		
Hydrochloric Acid HCL 50%	A	Perchloroethylene	X		
Hydrofluoric Acid HF 5%	A	Phenol	X		
Hydrofluoric Acid HF 50%	A	Phenol Formaldehyde	B		
Isopropyl Alcohol	A	Phosphoric Acid 50%	A		

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