



Triton Titanbond

Membrane for gas proofing, waterproofing and tanking of underground structures

Description

A pre-applied fully bonded waterproofing membrane incorporating the Titanflex membrane and a heavy-duty virgin polypropylene geotextile. The geotextile is laminated to the membrane to provide a dual function; protecting the membrane from damage and providing an integrated 'bond' to poured concrete, ensuring a full bonded waterproofing barrier which has exceptionally high resistance to ground gas and VOCs.

Uses

- Quick and easy installation
- Can be a fully welded system
- High resistance to ground gases
- Exceptional chemical resistance
- Manufactured to meet the most up to date British Standards and guidance
- Long term durability (performance guaranteed for the lifetime of the building)

Certifications

- CE Mark – EN13967:2012
- NHBC Standards Compliant
- BS 8485:2015 Compliant (Methane & Carbon Dioxide barrier)
- CIRIA C748 compliant (VOC barrier)
- BS 8102:2009 compliant (Type A waterproofing barrier)

Technical Data

Characteristics	Test Method	Unit	Titanbond
Physical Properties			
Thickness	EN 1849-2	mm	2.0
Width	EN 1849-2	M	1.9
Length	EN 1849-2	M	25
Weight	EN 1849-2	g/m ²	650
Hydraulic Properties			
Water Vapour Transmission Rate	EN 1931	g/m ² /day	0.14
Watertightness (60kPa)	EN 1928	–	Pass
Watertightness (196 kPa – 20m Water Head) (Basement Application)	EN 1928	–	Pass
Mechanical Properties			
Resistance to Static Load	EN 12730-B	Kg	>20
Tensile Strength (MD)	EN 12311-1	N/50mm	>550
Tensile Strength (CMD)	EN 12311-1	N/50mm	>400
Tensile Elongation (MD/CMD)	EN 12311-1	%	>550
Tear Resistance (MD/CMD)	EN 12310-1	N	>300
Resistance to Impact	EN 12691-B	mm	>1650
Reaction to Fire	EN 13501-1	Class	E
Concrete Peel Adhesion	ASTM D903 (MOD)	kN/m	>3.0
Resistance to Artificial Ageing	EN 1296/EN1928	–	Pass
Resistance To Chemicals	EN 1847/EN 1928	–	Pass

Characteristics	Test Method	Unit	Titanbond
Vapour Permeability 100% Concentration			
Transmission Rate of Benzene	EN ISO 15105-2	mg/m ² /day	2250
Transmission Rate of Toluene	EN ISO 15105-2	mg/m ² /day	2370
Transmission Rate of Ethyl Benzene	EN ISO 15105-2	mg/m ² /day	400
Transmission Rate of Xylene (M,P,O)	EN ISO 15105-2	mg/m ² /day	690
Transmission Rate of Hexane	EN ISO 15105-2	mg/m ² /day	0.58
Transmission Rate of Vinyl Chloride	EN ISO 15105-2	mg/m ² /day	0.112
Transmission Rate of Trichloroethene (Tce)	EN ISO 15105-2	mg/m ² /day	54.67
Transmission Rate of Tetrachloroethene (Pce)	EN ISO 15105-2	mg/m ² /day	25.91
Transmission Rate of Naphthalene	EN ISO 15105-2	mg/m ² /day	0.00057
Transmission Rate of CIS-1,2-Dichloroethene	EN ISO 15105-2	mg/m ² /day	3.09
Gas Permeability			
Methane Permeability	EN ISO 15105-1	ml/m ² /day/atm	0.13
Methane Permeability (Jointed)	EN ISO 15105-1	ml/m ² /day/atm	1.00
Carbon Dioxide Permeability	EN ISO 15105-1	ml/m ² /day/atm	3.01
Transmission Rate of Vinyl Chloride Gas	EN ISO 15105-1	ml/m ² /day/atm	0.04
Radon Permeability	K124/02/195	m ² /S	1.0 x 10 ⁻¹²

Characteristics	Test Method	Tensile Strength Retained	Result
Durability and Chemical Resistance			
Chemical Resistance – Sulphuric Acid (10% solution of Sulphuric Acid (H2504)) 50° for 56 days.	EN 14414-A	100%	Pass
Chemical Resistance – Basic (Calcium Hydroxide saturated suspension) 50° for 56 days.	EN 14414-B	100%	Pass
Chemical Resistance – Solvents (35% Diesel, 35% Paraffin, 30% Oil HD30 (vol)) 50° for 56 days.	EN 14414-C	>80%	Pass
Chemical Resistance – Synthetic Leachate (Mixture of 14 acids, chlorides, sulphates and phosphate) 50° for 56 days	EN 14414-D	100%	Pass
Resistance to Leaching – Hot Water (Deionised water) 50° for 56 days.	EN 14415-A	100%	Pass
Resistance to Leaching – Aqueous Alkaline (Saturated Calcium Hydroxide) 50° for 56 days.	EN 14415-B	100%	Pass
Resistance to Leaching – Organic Alcohol (30% Methanol, 30% Isopropanol, 40% Glycol) 50° for 56 days.	EN 14415-C	100%	Pass
Chemical Resistance – Benzene – 100% Saturated concentration	EN 14414-D (MOD)	95% (MD) / 102% (CMD)	Pass
Chemical Resistance – Toluene – 100% Saturated concentration	EN 14414-D (MOD)	94% (MD) / 91% (CMD)	Pass
Chemical Resistance – Ethyl Benzene – 100% Saturated concentration	EN 14414-D (MOD)	99% (MD) / 97% (CMD)	Pass
Chemical Resistance – Xylenes – 100% Saturated concentration	EN 14414-D (MOD)	91% (MD) / 106% (CMD)	Pass
Chemical Resistance – TCE – 100% Saturated concentration	EN 14414-D (MOD)	99% (MD) / 93% (CMD)	Pass
Chemical Resistance – PCE – 100 % Saturated concentration	EN 14414-D (MOD)	93% (MD) / 93% (CMD)	Pass
Chemical Resistance – Naphthalene – 100% Saturated concentration	EN 14414-D (MOD)	101% (MD) / 93% (CMD)	Pass
Chemical Resistance – Hexane – 100 % Saturated concentration	EN 14414-D (MOD)	99% (MD) / 104% (CMD)	Pass

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