

TITANBOND

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. Titanbond is used for the Gas/Waterproofing/Tanking of underground structures where harmful ground gases are anticipated.

CHARACTERISTIC	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
COMPLIANCE AND CERTIFICATION			
CE MARK – EN13967:2012			
NHBC STANDARDS COMPLIANT			
BS 8485:2015 COMPLIANT [METHANE AND CARBON DIOXIDE BARRIER] AND CIRIA C748 COMPLIANT [VOC BARRIER]			
BS 8102:2009 COMPLIANT [TYPE A WATERPROOFING BARRIER]			



- 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).

Technical Data

CHARACTERISTIC	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
DURABILITY AND CHEMICAL RESISTANCE			
Chemical Resistance – SULFURIC ACID (10% solution of Sulfuric Acid (H2504)) 50° for 56 days.	EN 14414 - A	TENSILE STRENGTH RETAINED	100%
		RESULT	PASS
Chemical Resistance – BASIC (Calcium Hydroxide saturated suspension) 50° for 56 days.	EN 14414-B	TENSILE STRENGTH RETAINED	100%
		RESULT	PASS
Chemical Resistance – SOLVENTS (35% Diesel, 35% Paraffin, 30% Oil HD30 (vol)) 50° for 56 days.	EN 14414-C	TENSILE STRENGTH RETAINED	>80%
		RESULT	PASS
Chemical Resistance – SYNTHETIC LEACHATE (Mixture of 14 acids, chlorides, sulphates and phosphate) 50° for 56 days	EN 14414 – D	TENSILE STRENGTH RETAINED	100%
		RESULT	PASS
Resistance to Leaching – HOT WATER (Deionised water) 50° for 56 days.	EN 14415-A	TENSILE STRENGTH RETAINED	100%
		RESULT	PASS
Resistance to Leaching – AQUEOUS ALKALINE (Saturated Calcium Hydroxide) 50° for 56 days.	EN 14415-B	TENSILE STRENGTH RETAINED	100%
		RESULT	PASS
Resistance to Leaching – ORGANIC ALCOHOL (30% METHANOL, 30% ISOPROPANOL, 40% GLYCOL) 50° for 56 days.	EN 14415-C	TENSILE STRENGTH RETAINED	100%
		RESULT	PASS
Chemical Resistance – BENZENE – 100% Saturated concentration	EN 14414-D (MOD)	TENSILE STRENGTH RETAINED	95% (MD) 102% (CMD)
		RESULT	PASS
Chemical Resistance – TOLUENE – 100% Saturated concentration	EN 14414-D (MOD)	TENSILE STRENGTH RETAINED	94% (MD) 91% (CMD)
		RESULT	PASS
Chemical Resistance – ETHYL BENZENE – 100% Saturated concentration	EN 14414-D (MOD)	TENSILE STRENGTH RETAINED	99% (MD) 97% (CMD)
		RESULT	PASS



Product Data Sheet

Chemical Resistance – XYLENES – 100% Saturated concentration	EN 14414-D (MOD)	TENSILE STRENGTH RETAINED	91% (MD) 106% (CMD)
		RESULT	PASS
Chemical Resistance – TCE – 100% Saturated concentration	EN 14414-D (MOD)	TENSILE STRENGTH RETAINED	99% (MD) 93% (CMD)
		RESULT	PASS
Chemical Resistance – PCE – 100 % Saturated concentration	EN 14414-D (MOD)	TENSILE STRENGTH RETAINED	93% (MD) 93% (CMD)
		RESULT	PASS
Chemical Resistance – NAPHTHALENE – 100% Saturated concentration	EN 14414-D (MOD)	TENSILE STRENGTH RETAINED	101% (MD) 93% (CMD)
		RESULT	PASS
Chemical Resistance – HEXANE – 100 % Saturated concentration	EN 14414-D (MOD)	TENSILE STRENGTH RETAINED	99% (MD) 104% (CMD)
		RESULT	PASS

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