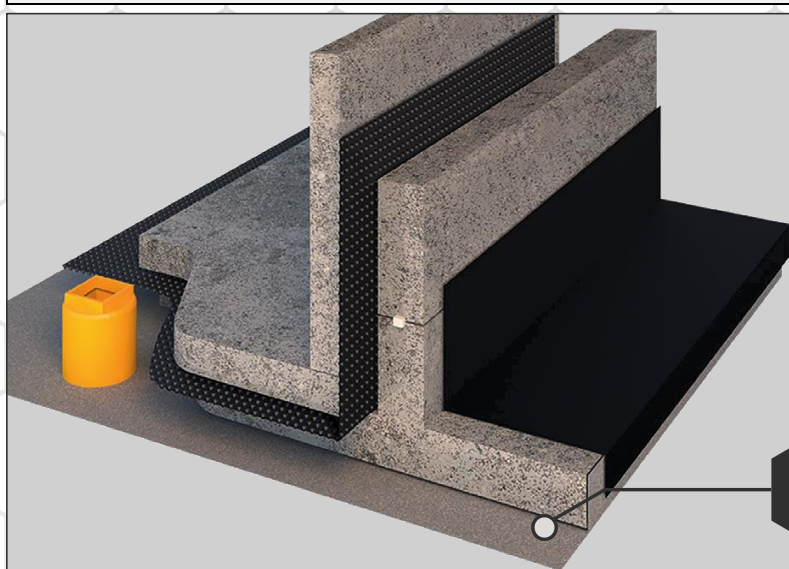


# GP<sup>®</sup> TITANBOND



A pre-applied fully bonded waterproofing membrane incorporating the GP<sup>®</sup> 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 fully bonded waterproofing barrier which has exceptionally high resistance to ground gas and VOCs. GP<sup>®</sup> TITANBOND is used for the Gas/Waterproofing/Tanking of underground structures where harmful ground gases are anticipated.

CHARACTERISTICS	TEST METHOD	UNIT	GP <sup>®</sup> TITANBOND
<b>PHYSICAL PROPERTIES</b>			
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 <sup>2</sup>	650
<b>HYDRAULIC PROPERTIES</b>			
WATER VAPOUR TRANSMISSION RATE	EN 1931	G/M <sup>2</sup> /DAY	0.11-0.18
WATERTIGHTNESS (60 kPa)	EN 1928	-	PASS
WATERTIGHTNESS (196 kPa - 20m WATER HEAD) (BASEMENT APPLICATION)	EN 1928	-	PASS
<b>MECHANICAL PROPERTIES</b>			
RESISTANCE TO STATIC LOAD	EN 12730-B	Kg	≥20
PUNCTURE RESISTANCE	EN 12236	kN	≥2.5
TENSILE STRENGTH (MD)	EN 12311-1	N/50mm	>550
TENSILE STRENGTH (CMD)	EN 12311-1	N/50mm	>400
TENSILE ELONGATION (MD/CMD)	EN 12310-1	%	>550
TEAR RESISTANCE	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/EN 1928	-	PASS
RESISTANCE TO CHEMICALS	EN 1847/EN 1928	-	PASS
<b>COMPLIANCE AND CERTIFICATION</b>			
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]			



GP<sup>®</sup> TITANBOND

- ⊕ 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).

Contact us to find out more information.  
[info@juta.co.uk](mailto:info@juta.co.uk) | 01772 754177 | JUTA.CO.UK  
 Melton Grove Works, Church Road, Lytham, FY8 5PL



# TECHNICAL DATA

CHARACTERISTICS	TEST METHOD	UNIT	GP® TITANBOND
<b>VAPOUR PERMEABILITY 100% CONCENTRATION</b>			
TRANSMISSION RATE OF BENZENE	EN ISO 15105-2	mg/m <sup>2</sup> /day	<3.6
TRANSMISSION RATE OF TOLUENE	EN ISO 15105-2	mg/m <sup>2</sup> /day	<13.8
TRANSMISSION RATE OF ETHYL BENZENE	EN ISO 15105-2	mg/m <sup>2</sup> /day	<2.7
TRANSMISSION RATE OF XYLENES (M,P,O)	EN ISO 15105-2	mg/m <sup>2</sup> /day	<7.7
TRANSMISSION RATE OF HEXANE	EN ISO 15105-2	mg/m <sup>2</sup> /day	<0.6
TRANSMISSION RATE OF VINYL CHLORIDE	EN ISO 15105-2	mg/m <sup>2</sup> /day	<0.05
TRANSMISSION RATE OF TRICHLOROETHENE (TCE)	EN ISO 15105-2	mg/m <sup>2</sup> /day	<54.7
TRANSMISSION RATE OF TETRACHLOROETHENE (PCE)	EN ISO 15105-2	mg/m <sup>2</sup> /day	<26.2
TRANSMISSION RATE OF NAPHTHALENE	EN ISO 15105-2	mg/m <sup>2</sup> /day	<0.0006
TRANSMISSION RATE OF CIS-1,2-DICHLOROETHYLENE	EN ISO 15105-2	mg/m <sup>2</sup> /day	<1.1
<b>GAS PERMEABILITY</b>			
METHANE PERMEABILITY	EN ISO 15105-1	ml/m <sup>2</sup> /day/atm	0.13
METHANE PERMEABILITY (JOINTED)	EN ISO 15105-1	ml/m <sup>2</sup> /day/atm	1.00
CARBON DIOXIDE PERMEABILITY	EN ISO 15105-1	ml/m <sup>2</sup> /day/atm	3.01
VINYL CHLORIDE GAS PERMEABILITY	EN ISO 15105-1	ml/m <sup>2</sup> /day/atm	0.04
RADON PERMEABILITY	K124/02/195	m <sup>2</sup> /S	1.0 X 10 <sup>-12</sup>
<b>DURABILITY AND CHEMICAL RESISTANCE</b>			
Chemical Resistance - SULFURIC ACID (10% Solution of Sulfuric Acid (H <sub>2</sub> SO <sub>4</sub> )) 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 & Phosphates) 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
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

**FOR THE NEEDS OF TODAY AND THE DEMANDS OF TOMORROW.**