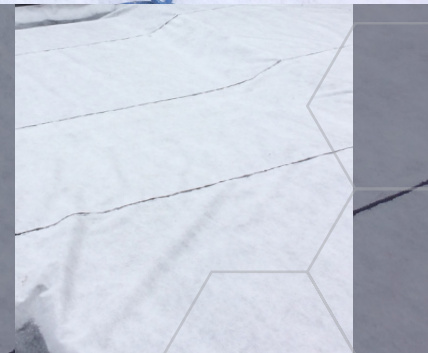




# GP® TITANBOND®



GP® TITANBOND® is a pre-applied fully bonded waterproofing membrane incorporating the GP® 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 gases and VOCs. GP® TITANBOND® is used for the gas/waterproofing/tanking of underground structure where harmful ground gases are anticipated.

|                  |                      |
|------------------|----------------------|
| <b>Thickness</b> | 2.0 mm               |
| <b>Width</b>     | 1.9 m                |
| <b>Length</b>    | 25 m                 |
| <b>Weight</b>    | 650 g/m <sup>2</sup> |

## TITANTECH®

For developers of brownfield and contaminated sites the TITANTECH® family of products represent a major step forward in safeguarding projects against gaseous and chemical contamination.

### Handling

Roll weights can be in excess of 20kg and hence appropriate care and equipment is required for unloading and handling.

### Storage

Rolls of GP® TITANBOND® should be stored on stable/level ground and stacked not more than five rolls high, with no other material stacked on top. The rolls can be stored outdoors when packaged, but should be protected from exposure to UV.

### Certifications



Please Scan



Rev 2024



| Feature   | Characteristics   | Test Method     | GP® TITANBOND®                            |
|---|---|-----------------|---|
| <b>Physical Properties</b>                            | Thickness   | EN 1849-2       | 2.0 mm                                    |
|   | Width   | EN 1849-2       | 1.9 m                                     |
|   | Length  | EN 1849-2       | 25 m                                      |
|   | Weight  | EN 1849-2       | 650 g/m <sup>2</sup>                      |
| <b>Hydraulic Press</b>                                | Water Vapour Transmission Rate  | EN 1931         | 0.11 - 0.18 g/m <sup>2</sup> /day         |
|   | Water Tightness (60 kPa)  | EN 1928         | Pass                                      |
|   | Water Tightness (196 kPa - 20 m Water Head)<br>(Basement Application) | EN 1928         | Pass                                      |
| <b>Mechanical Properties</b>                          | Resistance to Static Load   | EN 12730-B      | ≥ 20 kg                                   |
|   | Puncture Resistance   | EN 12236        | ≥ 2.0 kN                                  |
|   | Tensile Strength (MD)   | EN 12311-1      | > 550 N/50mm                              |
|   | Tensile Strength (CMD)  | EN 12311-1      | > 400 N/50mm                              |
|   | Tensile Elongation (MD/CMD)   | EN 12310-1      | > 550 %                                   |
|   | Tear Resistance (MD/CMD)  | EN 12310-1      | > 300 N                                   |
|   | Resistance to Impact  | EN 12691-B      | > 1650 mm                                 |
|   | Reaction to Fire  | EN 13501-1      | E Class                                   |
|   | Concrete Peel Adhesion  | ASTM D903 (MOD) | > 3.0 kN/m                                |
|   | Resistance to Artificial Ageing                                       | EN 1296/EN 1928 | Pass                                      |
| Resistance to Chemicals                               | EN 1296/EN 1928   | Pass            |   |
| <b>Compliance and Certification</b>                   | CE Mark - EN13967:2012  |                 |   |
|   | NHBC Standards Compliant  |                 |   |
|   | BS 8485:2015 Compliant (Methane and Carbon Dioxide barrier)           |                 |   |
|   | CIRIA C748 Compliant (VOC Barrier)                                    |                 |   |
|   | BS 8102:2009 Compliant (Type A Waterproofing Barrier)                 |                 |   |
| <b>Vapour Permeability<br/>100%<br/>Concentration</b> | Transmission Rate of Benzene  | EN ISO 15105-2  | < 3.6 mg/m <sup>2</sup> /day              |
|   | Transmission Rate of Toluene  | EN ISO 15105-2  | < 13.8 mg/m <sup>2</sup> /day             |
|   | Transmission Rate of Ethyl Benzene                                    | EN ISO 15105-2  | < 2.7 mg/m <sup>2</sup> /day              |
|   | Transmission Rate of Xylenes (M,P,O)                                  | EN ISO 15105-2  | < 7.7 mg/m <sup>2</sup> /day              |
|   | Transmission Rate of Hexane   | EN ISO 15105-2  | < 0.6 mg/m <sup>2</sup> /day              |
|   | Transmission Rate of Vinyl Chloride                                   | EN ISO 15105-2  | < 0.05 mg/m <sup>2</sup> /day             |
|   | Transmission Rate of Trichloroethene (TCE)                            | EN ISO 15105-2  | < 54.7 mg/m <sup>2</sup> /day             |
|   | Transmission Rate of Tetrachloroethene (PCE)                          | EN ISO 15105-2  | < 26.2 mg/m <sup>2</sup> /day             |
|   | Transmission Rate of Naphthalene                                      | EN ISO 15105-2  | < 0.0006 mg/m <sup>2</sup> /day           |
|   | Transmission Rate of CIS-1,2-Dichloroethylene                         | EN ISO 15105-2  | < 1.1 mg/m <sup>2</sup> /day              |
| <b>Gas Permeability</b>                               | Methane Permeability  | EN ISO 15105-1  | 0.13 ml/m <sup>2</sup> /day/atm           |
|   | Methane Permeability (Jointed)  | EN ISO 15105-1  | 1.00 ml/m <sup>2</sup> /day/atm           |
|   | Carbon Dioxide Permeability   | EN ISO 15105-1  | 3.01 ml/m <sup>2</sup> /day/atm           |
|   | Vinyl Chloride Gas Permeability                                       | EN ISO 15105-1  | 0.04 ml/m <sup>2</sup> /day/atm           |
|   | Radon Permeability  | K124/02/95      | 1.0 x 10 <sup>-12</sup> m <sup>2</sup> /S |
|   | Hydrogen Sulphide Permeability  | EN ISO 15105-1  | < 0.16 ml/m <sup>2</sup> /day/atm         |



| Feature   | Characteristics   | Test Method      | GP® TITANBOND®  |
|---|---|------------------|---|
| <b>Durability<br/>and Chemical<br/>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%<br>RESULT - PASS                 |
|   | Chemical Resistance - BASIC (Calcium Hydroxide Saturated Suspension) 50° For 56 Days                                  | EN 14414-B       | TENSILE STRENGTH RETAINED 100%<br>RESULT - PASS                 |
|   | Chemical Resistance - SOLVENTS (35% Diesel, 35% Paraffin, 30% Oil Hd30 (Vol)) 50° For 56 Days                         | EN 14414-C       | TENSILE STRENGTH RETAINED >80%<br>RESULT - PASS                 |
|   | Chemical Resistance - SYNTHETIC LEACHATE (Mixture of 14 Acids, Chlorides, Sulphates & Phosphates) 50° For 56 Days     | EN 14414-D       | TENSILE STRENGTH RETAINED 100%<br>RESULT - PASS                 |
|   | Resistance to Leaching - HOT WATER (Deionised Water) 50° For 56 Days  | EN 14415-A       | TENSILE STRENGTH RETAINED 100%<br>RESULT - PASS                 |
|   | Resistance to leaching - AQUEOUS ALKALINE (Saturated Calcium Hydroxide) 50° For 56 Days                               | EN 14415-B       | TENSILE STRENGTH RETAINED 100%<br>RESULT - PASS                 |
|   | Resistance to Leaching - ORGANIC ALCOHOL (30% Methanol, 30% Isopropanol, 40% Glycol) 50° For 56 Days                  | EN 14415-C       | TENSILE STRENGTH RETAINED 100%<br>RESULT - PASS                 |
|   | Chemical Resistance - BENZENE - 100% Saturated Concentration  | EN 14414-D (MOD) | TENSILE STRENGTH RETAINED 95% (MD), 102% (CMD)<br>RESULT - PASS |
|   | Chemical Resistance - TOLUENE - 100% Saturated Concentration  | EN 14414-D (MOD) | TENSILE STRENGTH RETAINED 94% (MD), 91% (CMD)<br>RESULT - PASS  |
|   | Chemical Resistance - ETHYL BENZENE - 100% Saturated Concentration  | EN 14414-D (MOD) | TENSILE STRENGTH RETAINED 99% (MD), 97% (CMD)<br>RESULT - PASS  |
|   | Chemical Resistance - XYLENES - 100% Saturated Concentration  | EN 14414-D (MOD) | TENSILE STRENGTH RETAINED 91% (MD), 106% (CMD)<br>RESULT - PASS |
|   | Chemical Resistance - TCE - 100% Saturated Concentration  | EN 14414-D (MOD) | TENSILE STRENGTH RETAINED 99% (MD), 93% (CMD)<br>RESULT - PASS  |
|   | Chemical Resistance - PCE - 100% Saturated Concentration  | EN 14414-D (MOD) | TENSILE STRENGTH RETAINED 93% (MD), 93% (CMD)<br>RESULT - PASS  |
|   | Chemical Resistance - NAPHTHALENE - 100% Saturated Concentration  | EN 14414-D (MOD) | TENSILE STRENGTH RETAINED 101% (MD), 93% (CMD)<br>RESULT - PASS |
|   | Chemical Resistance - HEXANE - 100% Saturated Concentration   | EN 14414-D (MOD) | TENSILE STRENGTH RETAINED 99% (MD), 104% (CMD)<br>RESULT - PASS |





## JUTA UK

Please contact JUTA  
UK Directly for more  
information on  
GP® TITANBOND®

## Installation

GP® TITANBOND® should be installed in accordance with the product installation guidelines, and in accordance with best practice.

## Jointing and Sealing

GP® TITANBOND® can be heat welded or taped, with jointing carried out by competent personnel with suitable qualifications in accordance with best practice. GP® TITANBOND® should be overlapped by at least 100mm. If taping joints, only suitable tape must be used, ensuring application with a silicone roller to remove trapped air. JUTA pre-formed details, or self adhesive gas membrane are available for sealing around protuberances.

## Accessory Products

- GP® DPC
- GP® TAPE
- GP® OVERTAPE
- JUTA 300TT