

# TITANTECH<sup>®</sup>

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.

GP® TITANTECH® SB - Gas and Hydrocarbon Resistant Starter Band (SB) is a unique multi-layer product specifically designed and manufactured to act as the Methane, Carbon dioxide, VOC, Radon & Moisture resistant damp proof course.

GP® TITANTECH® SB complies with the latest codes of practice as published by BRE, CIRIA and BSI (BS EN 14909, BS8485:2015 and C748). Suitable to act as the High Performance DPC for vertical and horizontal applications. Superior adhesion to mortar is essential for buildings of 3+ storey height.

## Handling

Roll weights can be in excess of 5 kg and hence appropriate care and equipment is required for unloading and handling.

### Storage

Rolls of JUTA GP® TITANTECH® SB 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. JUTA GP® TITANTECH® SB is classified as non-hazardous and is chemically inert such that it will not react with any acid or alkali environment in which it is used.



Named Accessory in Certification





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**Rev 2024** 

GROUND GAS
PROTECTION
GP® TITANTECH® SB
TECHNICAL DATA
SHEET



Feature	Characteristics	Test Method	GP® TITANTECH® SB
Physical Properties	Thickness	EN 1849-2	0.75 mm
	Width	EN 1849-2	300 mm / 450 mm / 600 mm / 900 mm
	Length	EN 1849-2	20 m
	Weight	EN 1849-2	750 g/m <sup>2</sup>
Hydraulic Properties	Water Vapour Transmission Rate	EN 1931	0.11-0.18 g/m <sup>2</sup> /day
	Watertightness (60 kPa)	EN 1928	Pass
	Watertightness (196 kPa - 20m Water Head) (Basement Application)	EN 1928	Pass
	Resistance to Static Load	EN 12730 - B	≥ 20 kg
	Puncture Resistance	EN 12236	≥ 1.25 kN
	Tensile Strength (MD)	EN 12311-1	> 800 N/50mm
Mechanical Properties	Tensile Strength (CMD)	EN 12311-1	> 600 N/50mm
	Tensile Elongation (MD/CMD)	EN 12310-1	> 550%
	Tear Resistance (MD/CMD)	EN 12310-1	> 450 N
	Resistance to Impact	EN 12691-B	> 950 mm
	Reaction to Fire	EN 13501-1	E Class
	Resistance to Artificial Ageing	EN 1296 / EN 1928	Pass
	Resistance to Chemicals	EN 1847 / EN 1928	Pass
	CE Mark - EN13967:2012		
	NHBC Standards Compliant		
0	BS EN 14909:2012 Compliant		
Compliance and Certification	BS 6515 Compliant		
oci (incation	CIRIA C748 Compliant		
	BS 8485:2015 Compliant		
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	Transmission Rate of Benzene	EN ISO 15105-2	< 3.6 mg/m²/day
	Transmission Rate of Toluene	EN ISO 15105-2	< 13.8 mg/m²/day
Vapour	Transmission Rate of Ethyl Benzene	EN ISO 15105-2	< 2.7 mg/m²/day
	Transmission Rate of Xylenes (M,P,O)	EN ISO 15105-2	< 7.7 mg/m²/day
Permeability	Transmission Rate of Hexane	EN ISO 15105-2	< 0.6 mg/m²/day
100%	Transmission Rate of Vinyl Chloride	EN ISO 15105-2	< 0.05 mg/m²/day
Concentration	Transmission Rate of Trichloroethene (TCE)	EN ISO 15105-2	< 54.7 mg/m²/day
	Transmission Rate of Tetrachloroethene (PCE)	EN ISO 15105-2	< 26.2 mg/m²/day
	Transmission Rate of Naphthalene	EN ISO 15105-2	< 0.0006 mg/m²/day
	Transmission Rate of CIS-1,2-Dichloroethylene	EN ISO 15105-2	< 1.1 mg/m²/day
Gas Permeability	Methane Permeability	EN ISO 15105-1	0.13 ml/m²/day/atm
	Methane Permeability (Jointed)	EN ISO 15105-1	1.00 ml/m²/day/atm
	Carbon Dioxide Permeability	EN ISO 15105-1	3.01 ml/m²/day/atm
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ous i cimeubinty	Vinyl Chloride Gas Permeability	EN ISO 15105-1	0.04 ml/m²/day/atm



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-eature	Characteristics	Test Method	GP® TITANTECH® SB
	Chemical Resistance - Sulfuric ACID (10% Solution of Sulfuric Acid (H <sub>2</sub> SO <sub>4</sub> )) 50° For 56 Days		TENSILE STRENGTH RETAINED 100%
		EN 14414-A	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%	EN 14414-C	TENSILE STRENGTH RETAINED > 80%
	Diesel, 35% Paraffin, 30% Oil Hd3O (Vol)) 50° For 56 Days		RESULT - PASS
	Chemical Resistance - SYNTHETIC LEACHATE (Mixture of 14 Acids, Chlorides, Sulphates & Phosphates) 50° For 56 Days	TENSILE STRENGTH RETAINED 100%	
		RESULT - PASS	
	Resistance to Leaching - HOT WATER (Deionised Water) 50° For 56 Days		TENSILE STRENGTH RETAINED 100%
		EN 14415-A	RESULT - PASS
	Resistance to leaching - AQUEOUS	EN 14415-B	TENSILE STRENGTH RETAINED 100%
	ALKALINE (Saturated Calcium Hydroxide) 50° For 56 Days		RESULT - PASS
	Resistance to Leaching - ORGANIC ALCO-		TENSILE STRENGTH RETAINED 100%
Durability and Chemical Resistance	HOL (30% Methanol, 30% Isopropanol, 40% EN 14415-C Glycol) 50° For 56 Days	RESULT - PASS	
	Chemical Resistance - BENZENE - 100% Saturated Concentration	EN 4444 D (MOD)	TENSILE STRENGTH RETAINED 95% (MD), 102% (CM
		EN 14414-D (MOD)	RESULT - PASS
	Chemical Resistance - TOLUENE - 100% Saturated Concentration	EN 14414-D (MOD)	TENSILE STRENGTH RETAINED 94% (MD), 91% (CMI
			RESULT - PASS
	Chemical Resistance - ETHYL BENZENE - 100% Saturated Concentration	EN 14414-D (MOD)	TENSILE STRENGTH RETAINED 99% (MD), 97% (CMI
			RESULT - PASS
	Chemical Resistance - XYLENES - 100% Saturated Concentration	EN 14414-D (MOD)	TENSILE STRENGTH RETAINED 91% (MD), 106% (CM
			RESULT - PASS
	Chemical Resistance - TCE - 100% Saturated Concentration	EN 14414-D (MOD)	TENSILE STRENGTH RETAINED 99% (MD), 93% (CMI
			RESULT - PASS
	Chemical Resistance - PCE - 100% Saturated Concentration	EN 14414-D (MOD)	TENSILE STRENGTH RETAINED 93% (MD), 93% (CMI
			RESULT - PASS
	Chemical Resistance - NAPTHALENE - 100% Saturated Concentration	EN 14414-D (MOD)	TENSILE STRENGTH RETAINED 101% (MD), 93% (CN
			RESULT - PASS
	Chemical Resistance - HEXANE - 100% Saturated Concentration	EN 14414-D (MOD)	TENSILE STRENGTH RETAINED 99% (MD), 104% (CN
			RESULT - PASS

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Feature	Characteristics	GP® TITANTECH® SB	
	Pre-Compression 0.2 N/mm <sup>2</sup>	Characteristic Shear Strength 0.14 N/mm²	
Shear Strength	Pre-Compression 0.6 N/mm <sup>2</sup>	Characteristic Shear Strength 0.34 N/mm²	
	Pre-Compression 1.0 N/mm <sup>2</sup>	Characteristic Shear Strength 0.52 N/mm²	

#### Installation

JUTA GP® TITANTECH® SB must be installed in accordance with the guidelines laid out in BS8215:1991, BS8000: part 3 and BS 5628. It can be used in most common floor constructions and is installed in a similar manor to damp proof membrane. For external walls the DPC should be applied 150mm above the adjoining surface and should be linked to a DPM or Gas Resistant DPM in solid floors. The DPC should be applied to a fresh bed of mortar, completely free of projections that may puncture the material or impede the DPC from lying flat.

## Joining and Sealing

Sheets of JUTA GP® TITANTECH® SB must be clean, dry and free from dirt and grease before application of joining tape. JUTA GP® DPC may also be heat welded to the underlying Gas resistant membrane.

## **Accessory Products**

JUTA GP® TITANTECH® SB is an accessory product for use in combination with GP® 1, GP® 2, GP® H, GP® SAM and GP® TITANTECH® gas protective membranes. It is also compatible with a range of DPM and other DPC materials.

## JUTA UK

For additional information or assistance, please contact JUTA UK directly.

