PUDLO GP Titanbond

PUDLO GP Titanbond is a pre-applied fully bonded waterproofing membrane incorporating 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 a full bonded interface to poured concrete which has exceptionally high resistance to ground gases and VOCs.

USES

- Provides protection from gas including Cs, carbon dioxide, methane, radon, hydrocarbons, and VOCs and protects the structure from water ingress
- PUDLO GP Titanbond is effective for all aspects of gas protection and where a Grade 1a, to a Grade 3 (waterproofing) environment is required
- PUDLO GP Titanbond can be used in horizontal or vertical applications
- PUDLO GP Titanbond is suitable for all ground floor and basement constructions including lift pits, slabs, liner walls, capping beams and service penetrations
- PUDLO GP Titanbond can also be used as single system

APPLICATION & INSTALLATION

Refer to PUDLO GP Titanbond installation manual

STORAGE & SHELF LIFE

- PUDLO GP Titanbond has a shelf life of 12 months, when kept in dry conditions at a temperature of 5°C to 45°C

PRODUCT DIMENSIONS, COVERAGE & PACKAGING

- 1.9m x 25m roll. (47.5m²)

BENEFITS

- Delivers full surface contact between the membrane and the concretes
- Overlaps are sealed by hot air welding, heat welded laps or joint tape (depending on the type of ground gas present)
- Complies with the latest codes of practice by BRE211, CIRIA 748 and BS8485:2015+A1:2019
- Complies with NHBC's Traffic Light Guidance (green, amber and red) for below ground gases

ANCILLARY PRODUCTS

- PUDLO Ultra Tape (100mm selvedge overlap tape)
- PUDLO Ultra EXT Tape (300mm roll end tape)

HEALTH & SAFETY

PUDLO GP Titanbond rolls are 35kg each and may need mechanical lifting

Please refer to PUDLO GP Titanbond MSDS for more information

FIRE

PUDLO GP Titanbond is a product that is both non-toxic and non-flammable.

Reaction to fire rating
- E Class

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FURTHER INFORMATION

For more accessories used with PUDLO GP Titanbond please contact: technical@pudlo.com

TECHNICAL DATA

Testing has been completed and carried out in accordance with the latest test criteria, under BS8485:2015 + A1:2019, BS8102:2022 and CIRIA C748, to determine the permeation rates for a range of carbon dioxide, Methane, Hydrocarbons and VOCs. Immersion testing has been completed for chemical resistance to EN 1441 and EN 14415.

PHYSICAL PROPERTIES

Characteristics	Test method	Unit	PUDLO GP Titanbond
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

Characteristics	Test method	Unit	PUDLO GP Titanbond
Water vapour rate	EN 1931	g/m2/day	0.11 – 0.18
Water tightness (60kPa)	EN 1928	-	PASS
Water tightness (196kPa – 20m water head)	EN 1928	-	PASS

PRODUCT NUMBER

4165/0030

Technical Data

Mechanical properties

Characteristics	Test method	Unit	PUDLO GP Titanbond
Resistance to static load	EN 12730	Kg	>20
Puncture Resistance	EN 12236	kN	>2.0
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 (MD/CMD)	EN 12310-1	N	>300
Resistance to impact	EN 12691-B	mm	650
Reaction to fire	EN 13501-1	Class	E
Resistance to artificial ageing	EN 1296/ EN 1928	-	PASS
Resistance to chemicals	EN 1296/ EN 1928	-	PASS

Vapour permeability - 100% concentration

Characteristics	Test method	Unit	PUDLO GP Titanbond
Transmission rate of benzene	EN ISO 15105-2	mg/m²/day	2250
Transmission rate of toluene	EN ISO 15105-2	mg/m²/day	2370
Transmission rate of ethyl benzene	EN ISO 15105-2	mg/m²/day	400
Transmission rate of xylene (mpo)	EN ISO 15105-2	mg/m²/day	690
Transmission rate of hexane	EN ISO 15105-2	mg/m²/day	95.25
Transmission rate of vinyl chloride	EN ISO 15105-2	mg/m²/day	36.44
Transmission rate of trichloroethene (TCE)	EN ISO 15105-2	mg/m²/day	1.44
Transmission rate of tetrachloroethene (PCE)	EN ISO 15105-2	mg/m²/day	1.59

Technical Data

Gas permeability

Characteristics	Test method	Unit	PUDLO GP Titanbond
Methane permeability	EN ISO 15105-1	ml/m²/day/atm	0.13
Methane permeability (welded joint)	EN ISO 15105-1	ml/m²/day/atm	1.00
Carbon dioxide permeability	EN ISO 15105-1	ml/m²/day/atm	3.01
Transmission rate of vinyl chloride gas	EN ISO 15105-1	ml/m²/day/atm	0.04
Radon permeability	K124/02/195	m²/s	1.0×10^{-12}

Certification 7 compliance

Organisation	Requirements
CE Mark	EN 13967
NHBC	Chapter 5.4 and traffic light system
BS 8485:2015 + A1-2019	Methane, carbon dioxide
CIRIA C748	VOC barrier
BS 8102:2022	Type A (barrier)

Supporting documents

- PUDLO GP Titantank MSDS
- PUDLO GP Titantank & Titanflex Installation Manual
- Product webpage - please see www.pudlo.com

**Table above, values are typical, with the exception of thickness, which is nominal. Typical indicates the mean value derived from the samples taken for any one test as defined in the BS EN ISO standard - usually the mean of five samples. Nominal is a guide*