

Technical Datasheet ATAL QUADPROOF ULTRA

Summary

A pre-applied fully bonded waterproofing gas barrier membrane combined with a heavy-duty virgin polypropylene geotextile providing a fully concrete bonded system in basement and below ground structures.

Application

- Designed to Integrate with the subsequently placed fresh concrete to give strong mechanical bond effect without adhesive, primers, heat or open flame.
- Applied prior to fixing steel reinforcement.
- Applied in a vertical and/or horizontal to blindside or under slab application.
- Used to create an integral seal between the concrete and the waterproofing membrane.
- Specifically developed for use on construction sites contaminated by Volatile Organic Compounds, Hydrocarbons, and other ground gasses such as Methane, Radon and CO².



Product Features & Benefits

- Ensures a fully bonded waterproofing barrier.
- Membrane bond is continuous.
- Supplied single-wound to achieve a lay flat surface.
- Exceptionally high resistance to ground gas and VOC's.
- Used for gas/waterproofing and tanking of underground structures.
- Impedes lateral migration of water between the membrane and concrete structure.
- Waterproofing barrier Type A.
- Easily folded on site.
- CE marked for water proofing to harmonised standard EN 13967:2012+A1:2017.
- Conforms to BS 1802:2022.
- Conforms with BS 8485:2015+A1:2019 (Table 7).
- Incorporates guidance outlined in CIRIA C748.
- Conforms to the specification required of NHBC Amber 1 & 2 applications.
- Suitable for all Characteristic Gas Situations (CS) ground gas regimes.
- Excellent welding characteristics.
- Two layers of Ethylene Vinyl Alcohol Co-Polymer (EVOH).
- Advanced 14-layer membrane barrier.
- Preformed accessories available.
- Taped system for easy cold applied installation.



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Material

- Taped system for easy cold applied installation
- Thickness – 1.9mm
- Colour – Purple / Grey
- Roll sizes – 1.65m x 30mtr

Material Properties		Test Method	Value
Thickness	Overall	Nominal	1.9mm
Thickness	Membrane	DIN EN 1849-2	0.4mm
Material	Membrane	Polyethylene / Ethylene Vinyl Alcohol	PE/EVOH
Thickness	Geotextile	EN ISO 9863/1	1.70mm +-20%
Material	Geotextile	Non-woven polypropylene geotextile fleece	PP

Technical Background

The Atal Quadproof ultra pre-applied fully bonded waterproofing gas barrier membrane incorporates a sealing layer of the Evolution BS8485 compliant gas membrane that is a hydrostatic resistant waterproofing layer combined with a bonding mechanism layer made up of a heavy-duty virgin polypropylene geotextile providing a fully concrete bonded system.



The membrane is 14 layers and contains 2 layers of gas barrier polymer (EVOH) to offer exceptional performance and prevent the ingress of dangerous gasses and water into buildings. It is manufactured using the latest high specification co-extrusion, multi-layer technology and cannot delaminate. Specifically developed for use as building protection on construction sites contaminated by ground gasses such as Methane, Radon and CO², Volatile Organic Compounds and Hydrocarbons. The product is CE compliant to act as a damp-proof membrane (DPM).

Pre-applied waterproofing membranes are applied prior to the concrete pour. The product can be applied in a vertical or horizontal fashion, also known as blindside or underslab application. Bonded systems are distinguished according to their timeline of installation into pre- and post-applied systems. Pre-applied bonded systems are installed before the concrete works on substrate, formwork and later form a bond with the subsequently placed fresh concrete.



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Colours			Membrane/fleece	Purple/Grey	
			Joint strip / accessories	Silver	
Width			DIN EN 1848-2	1650mm	
Length			DIN EN 1848-2	30m	
Area/roll			1.65m x 30m	49.5m ²	
Mass (combined)			DIN EN 1849-2/ISO 9864	515g m ²	
Packaged roll weight				28.65kg	
Reaction to fire			DIN EN ISO 11925-2/EN 13501-1	E	
Peel resistance (180° peel)			EN ISO 8510-2	49.1 N/50mm	
Water tightness @ 60kPa 24h & 500kPa 72h			DIN EN 1928 – Method B	Watertight	
Resistance to impact			DIN EN 12691 – 350mm drop	Watertight	
Resistance to static loading			DIN EN 12730	20kg (Pass)	
Durability against thermal ageing @ 60kPa			DIN EN 1296/DIN EN 1928	Watertight	
Durability against chemicals @ 60kPa			DIN EN 1847/DIN EN 1928	Watertight	
Durability against alkaline environment @ 60kPa			DIN EN 1847/DIN EN 1928	Watertight	
Durability against sulphurous acid @ 60kPa			DIN EN 1847/DIN EN 1928	Watertight	
Compatibility with bitumen @ 60kPa			DIN EN 1548/DIN EN 1928	Watertight	
Tensile strength	MD	CMD	DIN EN 12311-2 / DIN EN ISO 291-23/50-2	665 N/50mm	749 N/50mm
Elongation	MD	CMD	DIN EN 12311-2 / DIN EN ISO 291-23/50-2	748%	710%
Tear resistance – nail shank	MD	CMD	DIN EN 12311-2 / DIN EN ISO 291-23/50-2	678 N	671 N
Shear resistance of tapped joint seam – 50mm double sided / 75mm Reinforced fleece single sided			DIN EN 1217-2	228 N/50mm	166 N/50mm
Water vapour permeability			DIN EN 1931 – Method B	0.054g/m ² /day	
Oxygen transmission rate			ASTM F 1927, 20°C 60% RH	<0.75cc/m ² /day	
Methane permeability			ISO 15105-1	≤0.09 ml/m ² /day.atm	
Radon permeability			SP Method 3873	<12·10 ⁻¹² m ² /s	
Carbon Dioxide transmission			ISO 15105-1	0.37 ml/m ² /d.atm	

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Technical Data

- C748:2014 – Permeation vapour tests – 100% concentration
- C748:2014 – Chemical immersion resistance testing

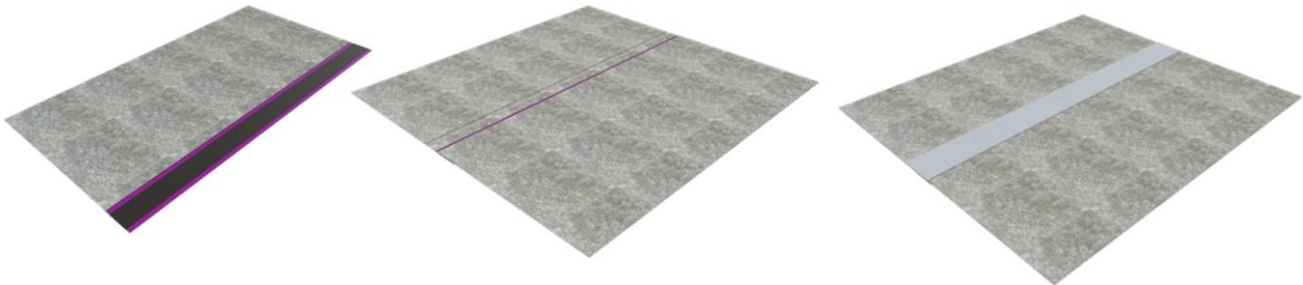
Material Properties	Test Method	Value
Benzene transmission rate	EN ISO 15105-2	$\leq 0.0001 \text{ ml/m}^2 \cdot \text{d}$
Toluene transmission rate	EN ISO 15105-2	$\leq 0.0001 \text{ ml/m}^2 \cdot \text{d}$
Ethyl Benzene transmission rate	EN ISO 15105-2	$\leq 0.0001 \text{ ml/m}^2 \cdot \text{d}$
Xylene transmission rate	EN ISO 15105-2	$\leq 0.0001 \text{ ml/m}^2 \cdot \text{d}$
Hexane transmission rate	EN ISO 15105-2	$\leq 0.0001 \text{ ml/m}^2 \cdot \text{d}$
Tetrachloroethene (PCE) transmission rate	EN ISO 15105-2	$\leq 0.0001 \text{ ml/m}^2 \cdot \text{d}$
Trichloroethylene (TCE) transmission rate	EN ISO 15105-2	$> 1.29 \text{ ml/m}^2 \cdot \text{d}$
Naphthalene transmission rate	EN ISO 15105-2	$\leq 0.0001 \text{ ml/m}^2 \cdot \text{d}$

Material Properties	Test Method	Tensile Strength retained		Result
		MD	CMD	
Benzene	EN ISO 14414	101%	97%	Pass
Toluene	EN ISO 14414	103%	100%	Pass
Ethyl Benzene	EN ISO 14414	104%	102%	Pass
Xylene	EN ISO 14414	104%	98%	Pass
Hexane	EN ISO 14414	104%	100%	Pass
Tetrachloroethene (PCE)	EN ISO 14414	105%	102%	Pass
Trichloroethylene (TCE)	EN ISO 14414	102%	99%	Pass
Napthalene	EN ISO 14414	102%	98%	Pass

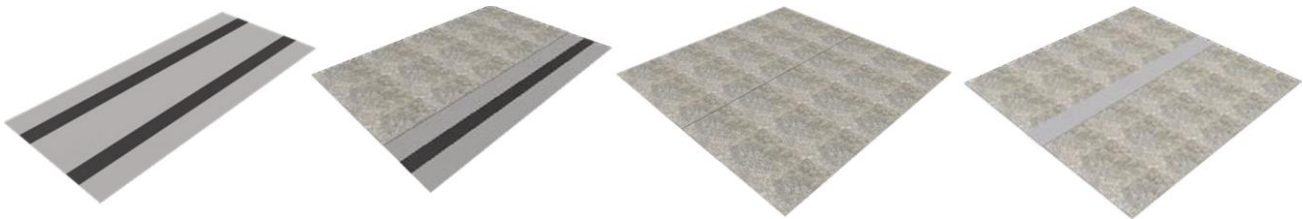
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Installation Guide

- Prior to installation the application surface needs to be cleaned from sharp and protruding objects to reduce risk of damage, for some applications soft sand blinding may be required.
- The product to be rolled out with the grey textile fleece surface laid to receive the concrete when poured.
- All lap joints to be completed as works proceed using selvedge on roll or by forming lap edges with additional edge strip.
- Apply double sided tape to selvedge and then overlap membrane to seal



- Additional over taping required to joint, applied over geotextile surface with reinforced fleece tape.



- Vertical and horizontal edges can easily be formed by folding the pre applied membrane or by using additional edge strip.
- Junctions and service penetrations can be formed with accessories, including corners, top hats, and pile collars.

Product Accessories

Our Technical Department is available to advise on individual projects and to prepare or assist in the preparation of schedules and issue drawings.

Certification

BBA certified as Quadproof Ultra Membrane, cert no. 20/5741



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Disclaimer

The technical information within this Technical Datasheet reflects our current knowledge of the product. It is intended only as information for users. As we do not know the envisaged application and installation conditions, it is the responsibility of the user to carefully check that the product is fit for purpose. Due to the different components at the installation site and the in-situ working conditions, Atal cannot provide any guarantee whatsoever for the result of the work. Claims arising from any legal relationship can only be recognized in the event of wilful intent or gross negligence, irrespective of the statements made here or advice provided verbally. In this case the user must prove and provide Atal in writing with all the information required to correctly assess the installation situation in good time. Subject to necessary product specifications or further developments.

Atal Technical Support

Atal offers nationwide and comprehensive technical support for all types of sites and construction projects.

Our team of CSSW qualified technical managers, technical advisors and site support operatives will be happy to help with our [free design service](#), free site visits, and free product training.

Atal is proud to support your project from the beginning stages, right up to the end.

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Atal CPD Seminars offer in-depth overviews of structural waterproofing, ground gas protection, building regulations, and industry standards.

Our seminars are created by our team of CSSW qualified technical managers, capable of catering to a project of your choosing, and are available for everyone eager to learn about or continue their professions in the construction industry.

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For any enquiries, or help with your project requiring structural waterproofing, contact us via phone or email below.
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