# Solutions for Fire Protection

ADVANCED MEMBRANES FOR BUILDING & CONSTRUCTION







## A. Proctor Group Ltd

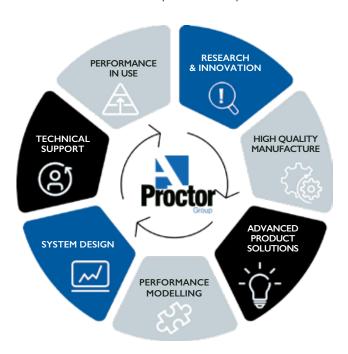
Experts in Fire Membrane Systems

The A. Proctor Group has, for 50 years, been serving the construction industry with an extensive portfolio of technically advanced thermal, acoustic and membrane products.

The A. Proctor Group has long considered the importance and impact of the message relating to fire in the construction industry, in particular the importance of correct specification and the impact application of products has on the building envelope.

### **Total Solution Capabilities**

From concept to completion



Years of investigation, research and development has resulted in new and innovative ways to protect buildings, both whilst being constructed and once built.

The A. Proctor Group's range of construction membranes combines this expertise to provide comprehensive protection to building envelopes from both the inside and the outside of the structure, whatever design criteria may apply.

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## Designing for Fire Solutions in Buildings

Due to the tragic event at the Grenfell Tower in 2017 and subsequent building fires in the UK, Facades and Fire Safety has, rightly so, elicited increased focus on the fire performance of products used in the constructions of today. It has had a huge impact on the high-rise sector and has resulted in one of the biggest changes in Regulation 7 and Approved Document B (ADB) that has been experienced for a number of years.

Whilst Regulation 7 and Approved Document B (ADB) are the regulatory and advisory documents, it was unfortunately the case that they were considered ambiguous and therefore the reading and interpretation of them could end up with flawed or potentially dangerous outcomes in both design and specification. The update in late 2017 sought to improve and strengthen the message, language, terminology and examples in order to simplify the information and attempt to remove any ambiguity and achieve mutual understanding of the requirements.

One of the most important amendments was the shift in classification of materials within ADB and the removal of references to BS 476-6&7 which previously classified products for Spread of Flame. The issue with the classification was that it only considered the reaction of the surface of the material being tested, and did not consider the combustibility of the whole product. Amendments in December 2022 have provided further clarification.

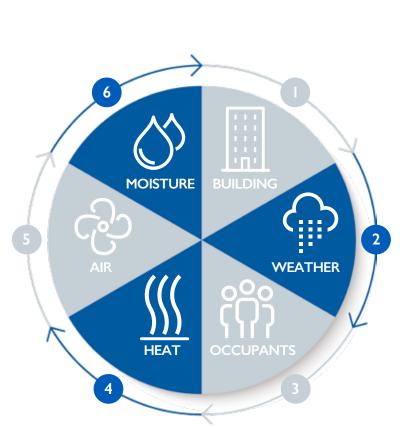
## Heat, Air & Moisture Management (HAMM) in building design

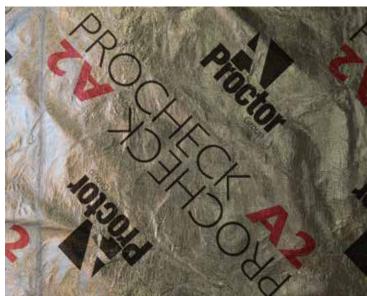
Based upon over 50 years of providing solutions and products for the construction sector we understand that a totally holistic approach is required to building design. This is equally essential in the design, manufacture, assembly and construction of buildings. In doing so, we consider six core aspects in the process:

- Building
- Weather
- Occupants
- Heat
- Air
- Moisture

For any building to be an energy efficient, healthy, moisture free building envelope there is a clear need to manage the balance of Heat, Air and Moisture movement throughout the process of the building's life cycle from design, construction, completion and use.

Understanding the importance of these key elements upon the building envelope is crucial to the successful design, construction and operation of a building.







## Standards & Building Regulations

Due to the performance requirements of certain critical, flexible components within the external façade, such as breather membranes, the ability to achieve a non-combustible classification is inhibited by the nature of the materials from which they are made.

This was understood by the regulatory writers and therefore a list of exempt components has been included in Approved Document B to accommodate such products. Manufacturers are investing time and money into this area in order to provide an achievable fire classification without impeding the performance of the product.

In the amendment to Document B in December 2022 the required fire classification for breather membranes is stated to be;



'Membranes used as part of the external wall construction should achieve a minimum classification of European Class B-s3,d0'

Traditionally breather membranes are mechanically fixed on low rise and taped on high rise. These membranes tend to shrink away from fire, however standard tests utilise a single focused burning flame which is widely challenged as the correct way to test a membrane for this application, and is not reflective of a real time scenario.

There is a clear benefit to using a self-adhesive membrane due to the material being fully adhered to the substrate. Therefore, there is no air gap behind the membrane and the substrate, meaning no flames can pass up the back of the membrane, as could happen with a loose mechanically fixed product.



## Membranes & Fire Performance

The increasing use of a self-adhered breathable membrane in high-rise development over A1 and A2 sheathing boards, has resulted in it being carefully considered in terms of performance in a fire context, which is of critical importance. Wraptite has therefore undergone classification to BS EN 13501-1 over a wide range of appropriate substrates.

The results from these tests showed that Wraptite achieved a Class B-sI-d0, the highest classification that can be achieved from a polypropylene based membrane.

Wraptite is not solely limited to being supported on a specific substrate, and is utilised on a variety of different substrates. In accordance with 5.2.2 of BS EN 13859-2, Wraptite has also been tested freehanging and achieves a Class B, s1,d0 result. Therefore Wraptite is suitable to be installed onto relevant buildings as per the current Approved Document B and regulation 7. Guidance should always be sought from a qualified fire engineer when specifying materials in such cases.

This performance allows designers to utilise the weather protection and air leakage performance benefits of Wraptite with confidence, even in the most demanding of applications where fire safety is critical.

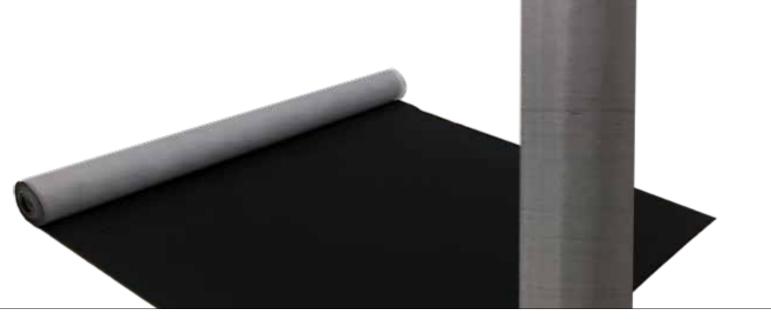
However, if using a membrane in the cavity, either on lower rise buildings, or in high rise to add further protection to the system, products which have a unique reaction to fire, such as Fireshield are ideal.

Fireshield is a more rigid mechanically fastened product compared to lighter weight polypropylene membranes, in part due to the nature of its glass fibre backing. The weight and robustness of the product makes it less likely to billow away from the substructure, forming air gaps behind the membrane.

Fireshield's specialist coating reduces fire spread across the surface of the membrane and it is fixed using mechanical fixings. The intumescent facing actively resists the spread of flame by preventing it from taking hold due to the 'foaming' effect (expanding when it interacts with fire).

The A. Proctor Group provide a number of Breathable Membranes and Vapour Control Layers which have in depth testing to ensure confidence in the performance of the products in situ.

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## PROBREATHE® A2

Probreathe® A2 is an A-rated breather membrane with an airtight woven glass fibre membrane with a PU coating. The membrane combines breathability, good water resistance and airtightness in one membrane. It has a Reaction to Fire classification of A2-s1,d0 when installed free-hanging or onto a substrate which is minimum A2-s1,d0.

Property	Test Method	Mean Results
Roll Size		1.5m x 50m
Weight		230 g/m <sup>2</sup>
Thickness		0.20mm
Temperature range		-36°C to 150°C
Water vapour resistance	EN 12572	Sd 0.095m
Reaction to Fire	EN 13501-1	A2-s1, d0

#### **Key Benefits**

- A2 Reaction to Fire Classification
- Increased airtightness over traditional breather membranes
- Vapour permeable membrane for use either directly onto sheathing or over insulation.
- Ideal for use in rainscreen/facade construction
- Suitable for use in relevant buildings and those over 11m/18m
- Robust & Durable wall membrane
- Allows temporary protection of the building until the primary external covering is installed

#### **ACCESSORIES**

- Probreathe FR Duo Tape (50mm × 25m)
- Probreathe FR Tape (75mm × 50m)

## PROBREATHE® A2 AIR

Probreathe® A2 Air is a woven glass fibre membrane designed to provide good water resistance and breathability to the building fabric. This membrane is air permeable, and will be installed either directly to the sheathing board, or over the insulation, providing a Reaction to Fire classification of A2-s1,d0.



Property	Test Method	Mean Results
Roll Size		1.5m × 50m
Weight		210 g/m²
Thickness		0.18mm
Air permeability		27m³/(h.m²)
Vapour permeability	EN 12572	Sd 0.03m
Temperature range		-36°C to 150°C
Resistance to water penetration	EN 1928	W2
Reaction to Fire*	EN 13501-1	A2-s1, d0

<sup>\*</sup>free-hanging

#### **ACCESSORIES**

- Probreathe FR Duo Tape (50mm x 25m)
- Probreathe FR Tape (75mm × 50m)

- A2 Reaction to Fire Classification
- Vapour permeable membrane for use either directly onto sheathing or over insulation.
- Ideal for use in rainscreen/facade construction
- Suitable for use in relevant buildings and those over IIm/I8m
- Robust & Durable



## PROCHECK® A2

Procheck A2, is a vapour and airtight membrane. Procheck A2, with it's Class A2-s1,d0 fire classification to BS EN 13501-1, will not significantly contribute to the fire load and growth. Its composition comprises of the glass fibre backing, with a pure aluminium foil and clear lacquer coating. This composition affords the membrane its Class A2 performance as well as giving it a high degree of vapour controlling properties. The membrane comes with a high vapour resistance, as well as being airtight, which allows its use as an AVCL in the construction. Providing high levels of airtightness can ensure the thermal efficiency of the building.

The integral foil layer, with its protective clear lacquer coating, gives this A2 membrane the unique added benefit of having a low emissivity surface. This means that the membrane, when installed with the foil face next to a service cavity, with a minimum depth of 19mm, will provide additional thermal performance to the overall wall construction.

Procheck A2 AVCL improves energy efficiency and reduces the risk of condensation.

Property	Test Method	Mean Results
Roll Size	-	1.2m × 50m
Weight		165 g/m²
Sd value	EN 1931	>1500m
Reaction to fire		A2-s1,d0
Water tightness	EN 1928	wı
Tensile strength		MD 700 N/50mm CD 700 N/50mm
Elongation	EN 12311-1	MD 2.5% CD 2.5%
Tear resistance		MD 150N CD 130N
Thermal resistance of an adjacent airspace	-	0.606 m²K/W



#### Key Benefits

- Reaction to Fire: Class A2-s1,d0
- Water vapour diffusion tight
- Reflective material, emissivity < 0.05
- Clear lacquered aluminium surface allows for low emissivity surface
- Easy to install
- Robust and able to withstand tough site conditions
- Suitable for use in relevant buildings and those over IIm/I8m

#### Accessories

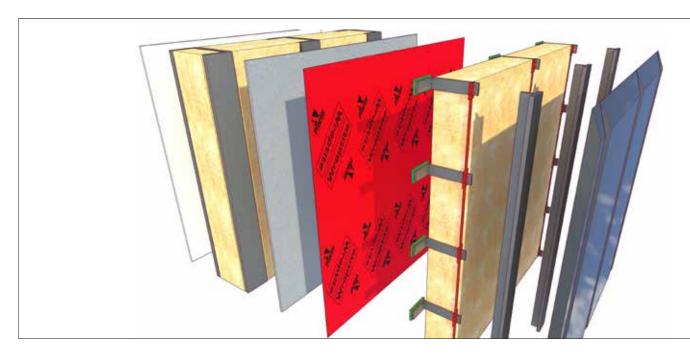
Procheck FR Tape is an aluminium faced, air and vapour tight tape

 Reaction to fire - Euroclass A2 for system when used in conjunction with Procheck A2

## **WRAPTITE®**

Wraptite is a unique patented external airtight and vapour permeable, self-adhered membrane which solves the problem of reliably achieving airtightness in buildings. Applying Wraptite to the outside of the building will mean there are fewer penetrations for services therefore the likelihood of expensive remedial work is greatly reduced. Wraptite is lightweight, easy to install and fully bonds to virtually any substrate, with a key benefit being its speed and ease of installation, negating any requirement for sealants or tapes. This new approach saves on both the labour and material costs associated with meeting the demands of modern energy efficiency requirements in both commercial and residential buildings.

Wraptite has received BBA certification for use in roofs, walls and modular floor construction making it an ideal choice for commercial projects with large uninterrupted façades. Its unique patented technology means it is the only self-adhering vapour permeable air barrier certified by the BBA. Wraptite is compliant with Part B regulation changes for use in the external wall systems of buildings over 18m in height, both as a continuous layer on sheathing board, behind fire classified insulation, and for use to tape joints in insulation behind rainscreen.



- Water resistant yet vapour permeable and airtight membrane
- Full adhesion avoids damage during transportation of modular timer frame kits to site
- Part B compliant for relevant buildings and those over 11m/18m
- Class B-s1,d0 on A2-s1,d0 or A1 substrate with minimum density of 653kg/m³ and 9mm thickness
- Can reduce wall thickness
- Leading airtightness performance
- Removes requirement for complex internal detailing and may negate requirement for VCL internally
- Reduces thermal by-pass
- Allows temporary protection until primary external covering
- Provides durability and reduced risk of tears and subsequent remedial work
- Unique patented technology
- Continuous airtight seal
- Simple detailing at junctions and corners less EPDM required



## WRAPTITE PHYSICAL PROPERTIES

Property	Test Method	Mean Results
Roll Size	-	1.5m × 50m
Nominal Thickness	Calibrated Deadweight Micrometer	0.65mm
Basis Weight	Electronic Weigh Scale	292 g/m²
Application Temperature	-	Air & surface: minimum -10°C maximum 60°C
Service Temperature		-40°C to +100°C
Water Penetration	EN 1928 : 2000 Method A	Class W1 (before ageing) Class W1 (after ageing)
Air Permeance	EN 12114	0.01 m <sup>3</sup> /m <sup>2</sup> .h.50 Pa
Water Vapour Resistance Sd	Sd EN 12572	0.039m
Water Vapour Transmission	BS 3177:1959	893 g/m².24hr
Peel Adhesion	EN 1939	5.01 N/10mm
Tensile Strength	EN 12311-1	Mean MD 417N Mean XD 252N
Tear Resistance	EN 12310-1	Mean MD 412N Mean XD 286N
Reaction to Fire	EN 11925-2 BS EN 13501-1	Class B-s1,d0 <sup>1,2</sup>

<sup>&</sup>lt;sup>1</sup>tested over 12mm calcium silicate board / fibre cement board as per BS EN 13238:2010.

<sup>2</sup>free hanging. It is unlikely that any breathable membrane in this application, including Wraptite would be free hanging due to either the self-adhered backing in Wraptite or the tapes used in installing non-self-adhered membranes. This test result is included to allow product specifiers to objectively compare Wraptite to other membranes tested using this method, and does not constitute a recommendation that Wraptite is installed free-hanging. Clients are urged to discuss their individual project with the Technical Department to ensure the suitability for any given project taking into account substrate, building height and boundary proximity.

All tests carried out to EN 13859-2 standard.





## WRAPTITE® UV

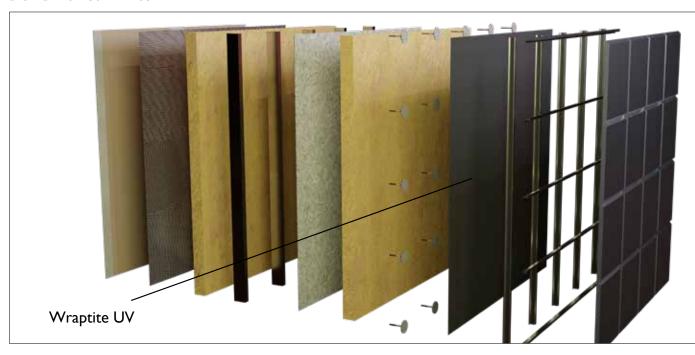
Wraptite UV is a Class B-s2,d0 fire rated membrane that combines the best properties of vapour permeability and air tightness in one innovative, self-adhering product, which is specifically designed for use behind open jointed cladding.

Wraptite UV has exceptional water resistance and UV resistance to provide a "shadow" appearance within open rainscreen façades. Manufactured from polyester and a functional coating, with a proprietary acrylic moisture vapour permeable adhesive and siliconecoated PET release liner.

Wraptite UV bonds (no mechanical attachment) to multiple substrates for air tightness and ease of installation, negating the requirement for a primer, sealants or tapes. Adhesive curing time is approximately 6hrs depending on environmental conditions.

Wraptite UV prevents lateral air movement enhancing the buildings thermal performance. With a rating of Sd 0.06m it provides a high vapour permeability in a commercial quality, self-adhered, airtight breathable membrane.

To protect the membrane from mechanical damage, the joint openings in the façade covering have to be less than 40% of the area, and maximum 50mm wide.



Proper	ty	Mean F	Results
Roll Size		1.5m × 50m	
Nominal thickness		0.38mm	
Basis Weight		392 g/m² (incl. liner)	
Water penetration	Before ageing After ageing	Class WI (before ag Class WI (after agei	eing) ng)
Water Vapour Permeability		Sd 0.060m	
Tensile strength	Before ageing After ageing	MD 490N/50mm MD 480N/50mm	CD 330N/50mm CD 310N/50mm
Tear resistance		MD 327.38N CD 453.38N	
Reaction to Fire		Class B-s2, d0*	
Resistance to penetration	on of air	<0.01 m³/(m².h.50Pa)	
UV resistance uncovere	ed	9 months (Climate:C	Central Europe)

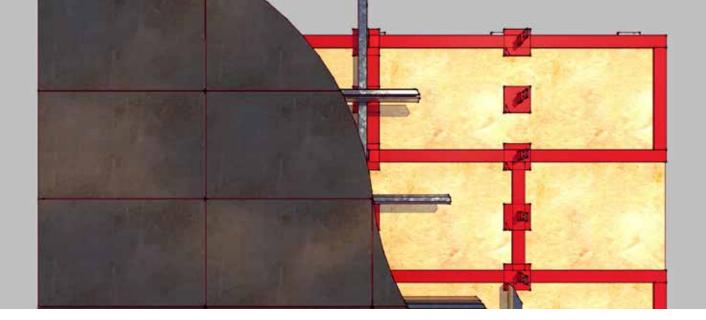
#### **Key Benefits**

- Airtight yet vapour permeable
- No primer required
- Tough facer laminate resists punctures and tears during construction
- Lightweight and easy to install
- Manufactured rolled goods ensure consistent properties and performance
- Wide service temperature range
- Can be left exposed for up to 9 months (UK climate)

#### Accessories

- Wraptite UV Tape
- Wraptite UV Tape Split Liner
- Wraptite UV Corners
- Wraptite LF

Please see pages 14-15 for details



## **WRAPTITE® TAPE**

A useful way of stopping unnecessary air leakage around openings and overlaps is to use Wraptite Tape, an airtight, tear resistant tape with high vapour permeability for internal and external applications. Wraptite Tape's flexibility facilitates ease of application and detailing, while its resilient composition resists punctures and tears during construction. It can be left exposed for up to 120 days during construction and has a wide operating temperature range (-40°C to +100°C). Wraptite Tape is also available with a split release liner for ease of installation.

Whilst Wraptite Tape is suitable for most applications there are some details, such as panel joints, cassette edges, complex detailing, where the benefit of a split liner is advantageous. The split liner allows one part of the Wraptite Tape to be adhered to the substrate, prior to the second portion, and can allow panels to be easily sealed on site. It can also be used for complex detailing where you need to protect part of the tape from bonding to areas until its needed. The split can be accommodated at any position across the reverse of the tape allowing flexibility of taped lap.

## WRAPTITE® TAPE SPLIT LINER

Whilst Wraptite Tape is suitable for most applications there are some details, such as panel joints, cassette edges, complex detailing, where the benefit of a split liner is advantageous. The split liner allows one part of the Wraptite Tape to be adhered to the substrate, prior to the second portion, and can allow panels to be easily sealed on site. It can also be used for complex detailing where you need to protect part of the tape from bonding to areas until its needed. The split can be accommodated at any position across the reverse of the tape allowing flexibility of taped lap.



#### **Key Benefits**

- Vapour permeable tape used to protect exposed joints in insulation
- Airtight
- Easy to use when detailing joints
- Ultimate airtightness accessory
- · Can seal joints in mechanically fastened air barrier
- Provides a continuous airtight seal
- Lightweight and flexible

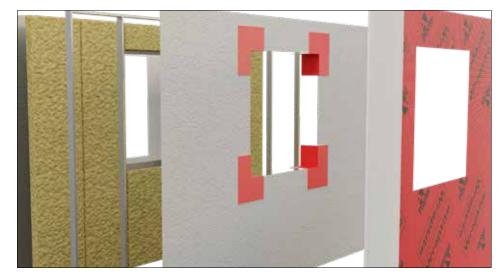
#### Key Benefits - Wraptite Split Liner only

- Easier removal of backing
- Location of split can be bespoke
- Aids accurate detailing
- Maintains adhered edge until installation phase
- Easier installation non-linear application ie pipe or window flashing

## **WRAPTITE** CORNERS

Wraptite Preformed Airtight Corners have been developed for the difficult areas around doors and windows where maintaining good air barrier continuity is difficult and time consuming. Wraptite Corners' simple design and installation process makes sealing openings against air leakage simple, just peel off the release liner, stick the corners in place, then install the Wraptite membrane as normal. This helps achieve the best possible results in the shortest possible time.

Once installed, the corner sections provide the same vapour permeable air barrier performance as the Wraptite membrane itself, ensuring air leakage and water ingress are minimised without trapping construction moisture or causing condensation.



#### **Key Benefits**

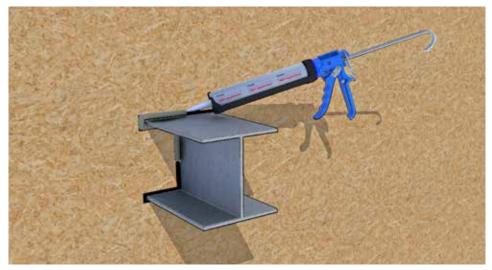
- Easy installation
- Ensures continuity of airtightness measures
- Simplifies complex detailing
- Faster installation
- Lightweight and flexible

Colour may vary

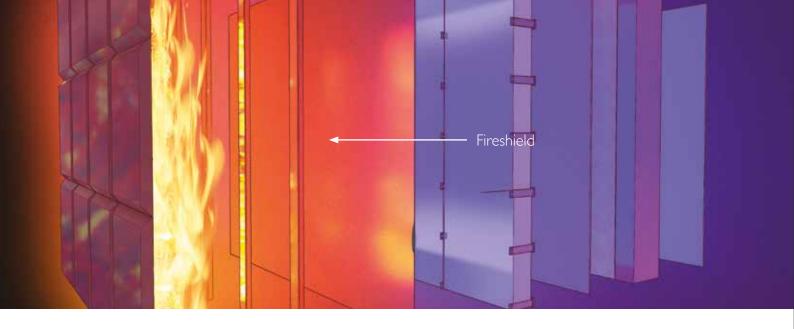
## WRAPTITE LIQUID FLASHING

Wraptite Liquid Flashing is a high-quality, gunable, elastomeric, polyether, liquid applied flashing and detailing membrane. It bonds to most construction materials, such as aluminium, brick, concrete, wood, vinyl, and exterior sheathing boards. Wraptite Liquid Flashing is compatible with our entire range of vapour permeable products for joint detailing in exterior sheathing panels.

Wraptite Liquid Flashing is ideal for use in complex details. It can also be used to protect the leading edge of the Wraptite membrane or tape from water penetration if the edge cannot be protected by overlapping in a shingle fashion.



- Airtight & vapour permeable
- Continuous seal and system approach
- Can be applied in damp conditions
- Does not peel back when left exposed
- · Does not create build up in rough openings
- Non-sag
- 100% solvent free
- Non-shrinking
- Bonds to most construction materials
- Easily applied and spread
- Does not harm foam insulation



## **FIRESHIELD®**

Fireshield is a vapour permeable walling underlay with an intumescent coated surface. Fireshield is suitable for all walling applications including those in multiple storey buildings. The intumescent coating helps protect the substrate by reducing the risk of fire taking hold and significantly reduces the formation of droplets and smoke. It is installed and fixed to the substrate in the same manner as standard breather membranes using mechanical fixings.

Fireshield can also be used on the external cavity face to improve the fire robustness of closed panel assemblies when installed to the external sheathing alongside suitable non-combustible internal linings.

Fireshield is the first vapour permeable membrane of its kind approved for inclusion in the structural timber association tested product listing for fire robustness during construction. As part of such a construction, Fireshield will be part of a system to limit the spread of fire to adjacent properties, which can allow for reduced spacing to adjacent properties.

Property	Test Method	Mean Results
Roll Sizes	-	1.1m x 20m
Weight		
Thickness	EN 1849-2	1.2mm
Nail Tear Resistance	EN 12310-1	MD 273N CD 330N
Resistance to Water Penetration	EN 13859-1	Class WI
Tensile Strength	EN 12311-1	MD 300N/5cm CD 275N/5cm
Elongation	EN 12311-1	MD 2-3% CD 2-3%
Water Impermeability		
UV Resistance	Internal Method, UVB	3 Months
Water Vapour Transmission Properties	EN ISO 12572 Conditions C	Sd=0.08m
Flexibility at Low Temperature	EN 1109	-20°C
Reaction to Fire	EN 13501-1 Test Method: EN 11925-2 & EN 13823 (SBI)	B-s1,d0
Resistance to Air Penetration	EN 12114	Im³/m²/hr@50Pa

- Part B compliant for relevant buildings and those over 11m / 18m
- The unique intumescent coating helps protect the substrate
- Vapour permeable walling membrane for use either directly onto sheathing or insulation
- Reaction to fire: Class B-s1,d0 but performs differently to other similar class products
- Complies with BS5250, BS4016 & NHBC requirements for vapour permeable walling underlays
- Robust and durable composition
- Airtight for enhanced energy efficiency



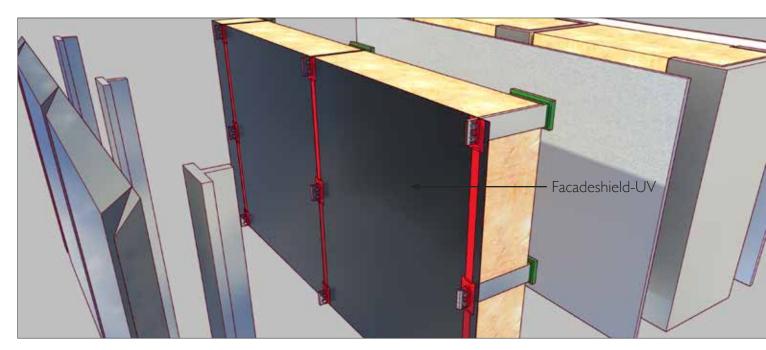
## **FAÇADESHIELD® UV**

Façadeshield UV is designed specifically to ensure the building fabric maintains good water resistance and breathability behind open jointed cladding.

Leading research has culminated in a non woven breathable membrane that combines exceptional water resistance and UV resistance with the aesthetically pleasing dark colour to provide a "shadow" appearance within open rainscreen façades.

Façadeshield UV enhances the air tightness of the building whilst reducing the risk of condensation due to its' high vapour permeability, yet airtight fabric. The product comes with the reassurance of a CE Mark showing the product's fitness for purpose in the façade application, making it the obvious choice behind open jointed façades.

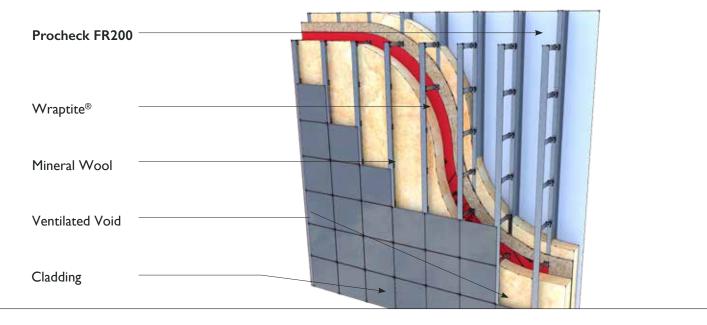
To protect the membrane from mechanical damage, the joint openings in the façade covering have to be less than 30% of the area, and maximum 30mm wide\*.



Property	Test Method	Mean Results
Roll Size	EN 1848-2	1.5m × 50m
Weight	EN 1849-2	210 g/m²
Thickness	EN 1849-2	0.35 mm
Colour		
Sd value	EN ISO 12572	0.04 m
Temperature Resistance		
Reaction to fire*	EN 13501-1	B-s1,d0
Resistance To Water Penetration	EN1928	WI

<sup>\*</sup>Freehanging

- Provides secondary protection to open jointed & perforated façades
- Aesthetically pleasing behind open façades
- Provides externally applied airtight layer for continuity of air barrier
- · Has long term durability
- Class B-s2,d0 Reaction to Fire
- Robust and able to withstand tough site conditions



## **PROCHECK FR200**

Procheck FR200 has a Reaction to Fire classification of B-s1,d0 which provides assurance of fire performance for the structure. Procheck FR200 AVCL improves energy efficiency and reduces the condensation risk. Procheck FR Tape is an aluminium faced, air and vapour tight tape designed for use with Procheck FR200.

Property	Test Method	Mean Results
Roll Sizes	n/a	I.6m × 50m
Thickness		
Weight	EN 1849-2	94g/m²
Colour		Black / White
Water Vapour Resistance	EN 1931	44m Sd 220 MNs/g
Service Temperature		
Temporary UV Exposure		9 months
Water resistance (after ageing)	EN 1928	WI
Reaction to fire	EN 13501-1	B-s1,d0 <sup>1,2</sup>
Tensile strength MD		
Tensile strength CD	EN 12311-1	165 N/50mm
Elongation MD	EN 12311-1	4%
Elongation CD	EN 12311-1	4%
Tear strength MD	EN 12310-1	81 N
Tear strength CD	EN 12310-1	83 N
Resistance against impact	EN 12691	250 mm
Durability against ageing: Water vapour resistance	EN 1296 / EN 1931	Passed
Durability against alkali:	EN 1847 / EN 12311-2	Passed

<sup>&</sup>lt;sup>1</sup>Tested on 12.5mm paper-faced gypsum plasterboard

#### **Key Benefits**

- Independent assurance of fire performance (EN 13501-1 B-s1,d0)
- Improved energy efficiency
- Reduced condensation risk
- Lightweight and easy to install
- Water vapour diffusion tight
- Withstands tough site conditions

#### Accessories

Procheck FR Tape is an aluminium faced, air and vapour tight tape

Reaction to fire (Procheck FR Tape) is Class B-s2,d0

<sup>&</sup>lt;sup>2</sup>Tested on 25mm standard Rockwool Substrate

## Specialist Services and Technical Support

Our technical back-up has always been an integral part of our strategic development, with an outlook based on advanced technical solutions, rather than commodity driven.

Our dedicated technical team is focused on providing high quality advice and support to our

Our dedicated technical team is focused on providing high quality advice and support to our customers all the way from drawing board to site.



#### **Customer Focused**

- Online Technical Advice
- Members Area / Onsite App
- WUFI & U-Value Calculations
- Condensation Risk Analysis
- CAD Design
- Site Advice
- CPD Presentations
- Accreditations

## Expertise and know-how to support your project

#### **CONDENSATION RISK ANALYSIS**

Condensation can significantly reduce the effectiveness of insulation, and result in damage to the building fabric.

A Condensation Risk Analysis evaluates the likelihood of interstitial condensation in your roof or wall construction. These calculations are regularly required by building control to demonstrate compliance with building regulation requirements. Calculations are performed free of charge when using our products.

#### DYNAMIC ASSESMENT WITH WUFI

The industry standard Glaser method considers only the movement of water vapour in a single direction. Where more complex analysis is required, hygrothermal simulation using the WUFI software can provide insight into the effects of capillary action, stored moisture and precipitation.

The movement of moisture is analysed in much more depth, using real world climate data to provide an hourly analysis, rather than the monthly averages that Glaser works with. Materials which are particularly able to store moisture perform very differently under the two methods.

#### **BIM DATA**

Available through NBS Chorus and NBS Source, specifiers can now access a full suite of digital products and technical specifications for many of our product solutions. The collaboration with NBS provides architects and designers with a comprehensive technical specification writing service. In addition, specifiers have easy access to the manufacturer's specification data, BIM objects, literature and third-party certifications.

#### **PRODUCT DIVISIONS**

We provide a wide range of high quality, innovative solutions which are designed to meet the continuously evolving requirements of the construction industry.

#### Product divisions include:

- Condensation Control Membranes
- Acoustic Floor Solutions
- External Airtight Barriers
- Ground Gas Protection
- Thermal Solutions

#### Get in touch for more information

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"I believe the success of the A. Proctor Group is down to a solid foundation of innovation backed up by an excellent, loyal and committed team, every one of them playing an important role in our continued success. Scotland provides us with a unique platform to launch our ideas, systems and products. I am fiercely proud of this heritage and our brand."

#### **Keira Proctor**

Managing Director, A. Proctor Group Ltd

