### The A Proctor Group Ltd

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Agrément Certificate 19/5653

Product Sheet 1 Issue 2

### THE A PROCTOR GROUP VAPOUR PERMEABLE MEMBRANES

### FIRESHIELD – FIRE RETARDANT BREATHER MEMBRANE

This Agrément Certificate Product Sheet<sup>(1)</sup> relates to Fireshield – Fire Retardant Breather Membrane, for use in external timber-frame, steel-frame and masonry cavity walls, with either a masonry outer leaf, lightweight cladding panels and weatherboarding or tile/slate cladding.

(1) Hereinafter referred to as 'Certificate'.

#### The assessment includes

#### **Product factors:**

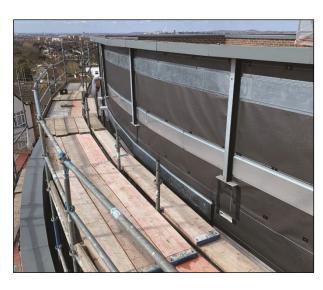
- compliance with Building Regulations
- compliance with additional regulatory or nonregulatory information where applicable
- evaluation against technical specifications
- · assessment criteria and technical investigations
- · uses and design considerations

#### **Process factors:**

- compliance with Scheme requirements
- installation, delivery, handling and storage
- production and quality controls
- · maintenance and repair

### Ongoing contractual Scheme elements†:

- · regular assessment of production
- · formal 3-yearly review



#### **KEY FACTORS ASSESSED**

- Section 1. Mechanical resistance and stability
- Section 2. Safety in case of fire
- Section 3. Hygiene, health and the environment
- Section 4. Safety and accessibility in use
- Section 5. Protection against noise
- Section 6. Energy economy and heat retention
- Section 7. Sustainable use of natural resources
- Section 8. Durability

The BBA has awarded this Certificate to the company named above for the product described herein. This product has been assessed by the BBA as being fit for its intended use provided it is installed, used and maintained as set out in this Certificate.

On behalf of the British Board of Agrément

Date of Second issue: 22 May 2024

Originally certificated on 13 May 2019

Hardy Giesler

Chief Executive Officer

This BBA Agrément Certificate is issued under the BBA's Inspection Body accreditation to ISO/IEC 17020. Sections marked with † are not issued under accreditation.

The BBA is a UKAS accredited Inspection Body (No. 4345), Certification Body (No. 0113) and Testing Laboratory (No. 0357).

Readers MUST check that this is the latest issue of this Agrément Certificate by either referring to the BBA website or contacting the BBA directly.

The Certificate should be read in full as it may be misleading to read clauses in isolation.

Any photographs are for illustrative purposes only, do not constitute advice and should not be relied upon.

British Board of Agrément

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BBA 19/5653 PS1 Issue 2 Page 1 of 12

### **SUMMARY OF ASSESSMENT AND COMPLIANCE**

This section provides a summary of the assessment conclusions; readers should refer to the later sections of this Certificate for information about the assessments carried out.

# **Compliance with Regulations**

Having assessed the key factors, the opinion of the BBA is that Fireshield – Fire Retardant Breather Membrane, if installed, used and maintained in accordance with this Certificate, can satisfy or contribute to satisfying the relevant requirements of the following Building Regulations:



# The Building Regulations 2010 (England and Wales) (as amended)

Requirement:

B3(4) Internal fire spread

Comment:

The product can contribute to satisfying this Requirement. See section 2 of this

Certificate.

Requirement:

B4(1) External fire spread

Comment:

The product may be restricted by this Requirement. See section 2 of this Certificate

Requirement:

C2(b) Resistance to moisture

Comment: The product will contrib

The product will contribute to satisfying this Requirement. See section 3 of this

Certificate.

Requirement: C2(c)

C2(c) Resistance to moisture

Comment: The product can contribute

The product can contribute to satisfying this Requirement. See section 3 of this

Certificate.

Regulation: 7(1)

7(1) Materials and workmanship

The product is acceptable. See sections 8 and 9 of this Certificate.



Comment:

# The Building (Scotland) Regulations 2004 (as amended)

Regulation:

8(1) Fitness and durability of materials and workmanship

Comment: The product can contribute to a construction satisfying this Regulation. See sections 8

and 9 of this Certificate.

Regulation:

9 Building standards - construction

Standard: 2.4 Cavities

Comment: The product can contribute to satisfying this Standard, with respect to clause 2.4.2<sup>(1)(2)</sup>.

See section 2 of this Certificate.

Standard:

2.6 Spread to neighbouring buildings

Comment: The product is unrestricted by this Standard, with reference to clauses 2.6.4<sup>(1)(2)</sup>,

2.6.5<sup>(1)</sup> and 2.6.6<sup>(2)</sup>. See Section 2 of this Certificate.

Standard:

2.7 Spread on external walls

Comment: The product is unrestricted by this Standard, with reference to clause 2.7.1<sup>(1)</sup>. See

section 2 of this Certificate.

Standard:

3.10 Precipitation

Comment: The product will contribute to satisfying this Standard, with reference to clauses

 $3.10.1^{(1)(2)}$  and  $3.10.8^{(1)(2)}$ . See section 3 of this Certificate.

Standard:

3.15 Condensation

Comment: The product can contribute satisfying this Standard, with reference to clauses

 $3.15.1^{(1)(2)}$ ,  $3.15.5^{(1)(2)}$  and  $3.15.7^{(1)(2)}$ . See section 3of this Certificate.

BBA 19/5653 PS1 Issue 2 Page 2 of 12

Standard: 7.1(a) Statement of sustainability

Comment: The product can contribute to satisfying the relevant requirements of Regulation 9,

Standards 1 to 6, and therefore will contribute to a construction meeting a bronze

level of sustainability as defined in this Standard.

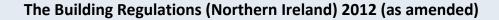
Regulation: 12 Building standards - conversions

Comment: Comments in relation to the product under Regulation 9, Standards 1 to 6, also apply

to this Regulation, with reference to clause  $0.12.1^{(1)(2)}$  and Schedule  $6^{(1)(2)}$ .

(1) Technical Handbook (Domestic).

(2) Technical Handbook (Non-Domestic).



Regulation: 23(1)(a)(i) Fitness of materials and workmanship

Comment: (iii)(b)(i) The product is acceptable. See sections 8 and 9 of this Certificate.

Regulation: 28(b) Resistance to moisture and weather

Comment: The product will contribute to satisfying this Regulation. See section 3 of this

Certificate.

Regulation: 29 Condensation

Comment: The product can contribute to satisfying this Regulation. See section 3 of this

Certificate.

Regulation: 35(4) Internal fire spread

Comment: The product can contribute to satisfying this Regulation. See section 2 of this

Certificate.

Regulation: 36(a) External fire spread

Comment: The product may be restricted by this Regulation. See section 2 of this Certificate.

#### **NHBC Standards 2024**

In the opinion of the BBA, Fireshield – Fire Retardant Breather Membrane, if installed, used and maintained in accordance with this Certificate, can satisfy or contribute to satisfying the relevant requirements in relation to *NHBC Standards*, Chapters 6.1 *External masonry walls*, 6.2 *External timber framed walls*, 6.9 *Curtain walling and cladding* and 6.10 *Light steel framed walls and floors*.

# **Fulfilment of Requirements**

The BBA has judged Fireshield – Fire Retardant Breather Membrane to be satisfactory for use as described in this Certificate. The product has been assessed as a breather membrane for use in external timber-frame, steel-frame and masonry cavity walls, with either a masonry outer leaf, lightweight cladding panels and weatherboarding or tile/slate cladding.

### **ASSESSMENT**

# **Product description and intended use**

The Certificate holder provided the following description for the product under assessment. Fireshield – Fire Retardant Breather Membrane is a three-layer composite.

The product has the nominal characteristics given in Table 1.

BBA 19/5653 PS1 Issue 2 Page 3 of 12

Table 1 Nominal characteristics of Fireshield – Fire Retardant Breather Membrane

Characteristic (unit)	Value
Thickness (mm)	1.2
Mass per unit area (g·m⁻²)	737
Roll length (m)	20
Roll width (m)	1.1

#### **Ancillary Items**

The Certificate holder recommends the following ancillary items for use with the product, but these materials have not been assessed by the BBA and are outside the scope of this Certificate:

• Wraptite UV Tape — a polypropylene and acrylic tape for detailing purposes.

#### Definitions for products and applications inspected

In the absence of other guidance, suitable timber-, steel- and concrete-frame walls are defined as those designed and built in accordance with *NHBC Standards* 2024, Chapters 6.1, 6.2, 6.9 and 6.10.

# **Product assessment – key factors**

The product was assessed for the following key factors, and the outcomes of the assessments is shown below. Conclusions relating to the Building Regulations apply to the whole of the UK unless otherwise stated.

### 1 Mechanical resistance and stability

Date were assessed for the following characteristics.

#### 1.1 Resistance to mechanical damage

1.1.1 Results of resistance to mechanical damage tests are given in Table 2.

Table 2 Results of mechanic	cal damage tests		
Product assessed	Assessment method	Requirement	Result
Fireshield – Fire Retardant	Nail tear strength to BS EN 12310 : 2000	Value achieved	
Breather Membrane	Longitudinal direction		273N
	Transverse direction		331N

1.1.2 On the basis of data assessed, the product has adequate strength to resists loads associated with installation.

# 2 Safety in case of fire

Data were assessed for the following characteristics.

#### 2.1 Reaction to fire

2.1.1 The result of a reaction to fire classification is given in Table 3

BBA 19/5653 PS1 Issue 2 Page 4 of 12

Table 3 Reaction to fire class	ification		
Product assessed	Assessment method	Requirement	Result
Fireshield – Fire Retardant	BS EN 13501 -1 : 2007	Classification achieved	B- s1, d0 <sup>(1)(2)</sup>
Breather Membrane			

- (1) Classification report 6P10424-1, issued by SP Technical Research Institute of Sweden. A copy of the report is available from the Certificate holder on request.
- (2) Classification is valid for the product mechanically fixed directly onto a substrate with vertical joints, with the substrate classified as either A1 or A2-s1,d0 to BS EN 13501-1 : 2018, at least 9 mm thick, having a density ≥ 510 kg·m³, or wood based at least 10 mm thick.
- 2.1.2 The classification and permissible areas of use of the product when applied over other substrates must be established in accordance with the requirements of the documents supporting the national Building Regulations.
- 2.1.3 The construction defined in table 3 is unrestricted in terms of height and proximity to a relevant boundary by the documents supporting the national Building Regulations.
- 2.1.4 In Scotland, the use of the product is unrestricted with respect to height and proximity to a relevant boundary. However, restrictions on the overall construction may apply, depending on the reaction to fire classification achieved by the built up system, which must be established on a case by case basis.
- 2.1.5 Designers must refer to the relevant national Building Regulations and guidance for conditions of use, particularly in respect of requirements for substrate fire performance, cavity barriers, service penetrations and combustibility limitations for other materials and components used in the overall construction.

# 3 Hygiene, health and the environment

Data were assessed for the following characteristics.

#### 3.1 Weathertightness

3.1.1 Results of Weathertightness tests are given in Table 4.

Table 4 Weathertightness			
Product assessed	Assessment method	Requirement	Result
Fireshield – Fire Retardant	Water resistance to BS EN 1928 : 2000	No leakage	Pass
Breather Membrane			

- 3.1.2 On the basis of the data assessed, the product is Class W1 in accordance with BS EN 13859-2: 2014 and will resist liquid water penetration and wind-blown snow, and will protect the sheathing and frame from external moisture.
- 3.1.3 The product satisfies the NHBC requirement given in *NHBC Standards* 2024, Chapter 6.2, for use in very severe conditions<sup>(1)</sup>.
- (1) Very severe conditions are defined in the NHBC Standards 2024, Chapter 6.1.6 see Exposure Zones map, showing categories of exposure to wind-driven rain.
- 3.1.4 The product resists penetration of liquid water and consequently can be used as temporary weather protection during construction, prior to the completion of external brickwork or claddings. The period of such use must, however, be kept to a minimum. Advice must be sought from the Certificate holder, but such advice is outside the scope of this Certificate.

#### 3.2 Condensation

3.2.1 Results of water vapour resistance tests are given in Table 5.

BBA 19/5653 PS1 Issue 2 Page 5 of 12

Table 5 Water vapour resistance			
Product assessed	Assessment method	Requirement	Result
Fireshield – Fire Retardant	Water vapour transmission to	Value achieved	S <sub>d</sub> 0.08m <sup>(1)</sup>
Breather Membrane	EN ISO 12572 : 2001		

<sup>(1)</sup> Water vapour resistance may be taken as 5 x S<sub>d</sub> value

- 3.2.2 A condensation risk analysis was carried out based on the result given in Table 5 and satisfactory conclusions were drawn.
- 3.2.3 The product's water vapour resistance is less than or equal to  $0.6 \text{ MN} \cdot \text{s} \cdot \text{g}^{-1}$ , and it is classified as a breather membrane in accordance with BS 5250 : 2021. It will, therefore, contribute towards minimising the risk of interstitial condensation in walls designed and constructed in accordance with BS 5250 : 2021.

# 4 Safety and accessibility in use

Not applicable.

# 5 Protection against noise

Not applicable

# 6 Energy economy and heat retention

Not applicable.

#### 7 Sustainable use of natural resources

Not applicable.

# 8 Durability

- 8.1 The potential mechanisms for degradation and the known performance characteristics of the materials in the product were assessed.
- 8.2 Specific test data were assessed as given in Table 6.

Table 6 Results of d	urability tests		
Product assessed	Assessment method	Requirement	Result
Fireshield – Fire	Dimensional stability to BS EN 1107-2: 2001		
Retardant	Longitudinal	≤ 2%	Pass
Breather	Transverse	≤ 2%	Pass
Membrane	Tensile strength to BS EN 12311-1: 2000	Declared values	
	Longitudinal	300 N per 50 mm	Pass
_	Transverse	275 N per 50 mm	Pass
_	Immersed in water at 23°C for 24 hours	Value achieved	
	Longitudinal		531 N·(50mm) <sup>-1</sup>
	Transverse		371 N·(50mm) <sup>-1</sup>
_	336 hours UVA at 50°C followed by	< 30% ∆ change	
	90 days heat ageing at 70°C		
_	Longitudinal		Pass
	Transverse		Pass
	Resistance to water penetration to EN 1928 : 2001	No leakage	Pass
	336 hours UVA at 50°C followed by		
	90 days heat ageing at 70°C		

BBA 19/5653 PS1 Issue 2 Page 6 of 12

#### 8.3 Service life

- 8.3.1 Under normal service conditions, the product will have a life equivalent to the structure in which it is incorporated, provided it is not exposed to sunlight for long periods, and it is designed, installed and maintained in accordance with this Certificate and the Certificate holder's instructions.
- 8.3.2 The exposure of the product's period prior to installation of the external cladding must be kept to a minimum. Advice should be sought from the Certificate holder, but such advice is outside the scope of this Certificate.

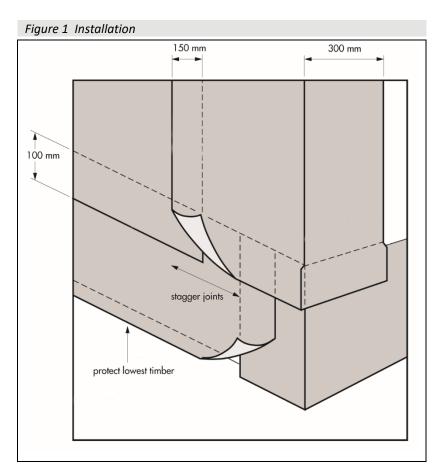
# **PROCESS ASSESSMENT**

Information provided by the Certificate holder was assessed for the following factors:

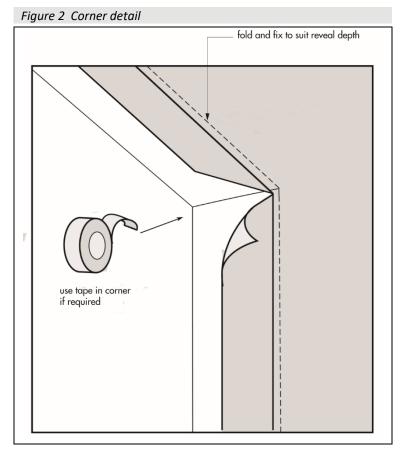
# 9 Design, installation, workmanship and maintenance

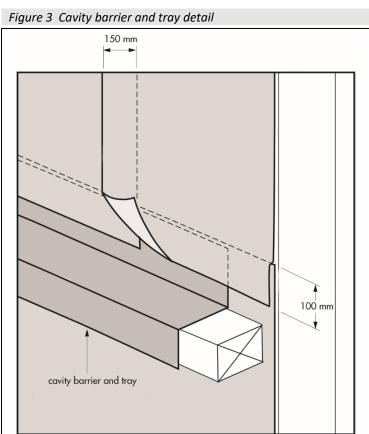
#### 9.1 Installation

- 9.1.1 Installation instructions provided by the Certificate holder were assessed and judged to be appropriate and adequate.
- 9.1.2 The product must be installed in accordance with this Certificate, the Certificate holder's instructions and the recommendations given in *NHBC Standards* 2024, Chapter 6.2, where appropriate. A summary of instructions and guidance is provided in Annex A of this Certificate.
- 9.1.3 The product must be fixed in such a way as to shed water away from the sheathing, and below the lowest timber. Upper layers must be lapped over lower layers.
- 9.1.4 Horizontal laps must be at least 100 mm and vertical laps 150 mm. Vertical laps must be staggered wherever possible (see Figures 1 to 3).



BBA 19/5653 PS1 Issue 2 Page 7 of 12





- 9.1.5 The product must be secured at regular intervals not exceeding 500 mm with austenitic stainless steel staples or nails.
- 9.1.6 It is essential that the positions of studs are marked to enable fixing of wall ties or battens.

BBA 19/5653 PS1 Issue 2 Page 8 of 12

- 9.1.7 It is essential that the lowest timbers in the wall are protected by the product.
- 9.1.8 The product can be damaged by high winds, careless handling or vandalism and must not be left exposed for longer than is necessary.

#### 9.3 Workmanship

Practicability of installation was assessed by the BBA on the basis of the Certificate holder's information. To achieve the performance described in this Certificate, installation of the product must be installed by a competent general builder or contractor experienced with this type of product.

#### 9.4 Maintenance and repair

- 9.4.1 As the product is confined within the wall space and has suitable durability, maintenance is not required.
- 9.4.2 Damage to the product must be repaired prior to the installation of the external walls or cladding, by laying another sheet over the damaged area and sealing correctly, ensuring water is shed away from the sheathing.

#### 10 Manufacture

- 10.1 The production processes for the product have been assessed, and provide assurance that the quality controls are satisfactory according to the following factors:
- 10.1.1 The manufacturer has provided documented information on the materials, processes, testing and control factors.
- 10.1.2 The quality control operated over batches of incoming materials has been assessed and deemed appropriate and adequate.
- 10.1.3 The quality control procedures and product testing to be undertaken have been assessed and deemed appropriate and adequate .
- 10.1.4 The process for management of non-conformities has been assessed and deemed appropriate and adequate.
- 10.1.5 An audit of each production location was undertaken, and it was confirmed that the production process was in accordance with the documented process, and that equipment has been properly tested and calibrated.
- † 10.2 The BBA has undertaken to review the above measures on a regular basis through a surveillance process, to verify that the specifications and quality control operated by the manufacturer are being maintained.

#### 11 Delivery and site handling

- 11.1 The Certificate holder stated that the product is delivered to individually wrapped in polythene bearing the product name and the BBA logo incorporating the number of this Certificate.
- 11.2 Delivery and site handing must be performed in accordance with the Certificate holder's instructions and this Certificate, including:
- 11.2.1 Rolls must be stored on end on a smooth, clean, dry surface, under cover and protected from sunlight.

BBA 19/5653 PS1 Issue 2 Page 9 of 12

# ANNEX A - SUPPLEMENTARY INFORMATION †

Supporting information in this Annex is relevant to the product but has not formed part of the material assessed for the Certificate.

# <u>Construction (Design and Management) Regulations 2015</u> Construction (Design and Management) Regulations (Northern Ireland) 2016

Information in this Certificate may assist the client, designer (including Principal Designer) and contractor (including Principal Contractor) to address their obligations under these Regulations.

# **CE** marking

The Certificate holder has taken the responsibility of CE marking the product in accordance with harmonised European Standard EN 13859-2: 2014.

### Management Systems Certification for production

The management system of the manufacturer has been assessed and registered as meeting the requirements of BS EN ISO 9001 : 2015 by DVL GL (Certificate 113901-2012-AQ-ITA-ACCREDIA).

### Additional information on installation

### Condensation

A.1 The risk of condensation occurring within the wall of a timber-frame building will depend upon the properties and vapour resistance of other materials used in the construction, the internal and external conditions and the effectiveness of the internal vapour control layer.

A.2 Convective water vapour transfer into the wall construction can be reduced by installing a vapour control layer/air barrier behind the internal lining.

BBA 19/5653 PS1 Issue 2 Page 10 of 12

# **Bibliography**

BS 5250: 2021 Code of practice for Management of moisture in buildings

BS EN 1928 : 2000 Flexible sheets for waterproofing. Bitumen, plastic and rubber sheets for roof waterproofing — Determination of watertightness

BS EN 13859-2 : 2014 Flexible sheets for waterproofing — Definitions and characteristics of underlays — Underlays for walls

BS EN 1107-2 : 2001 Flexible sheets for waterproofing — Determination of dimensional stability — Plastic and rubber sheets for roof waterproofing

BS EN 12311-1 : 2000 Flexible sheets for waterproofing — Determination of tensile properties — Bitumen sheets for roof waterproofing

BS EN 12310 : 2000 Flexible sheets for waterproofing — Determination of resistance to tearing (nail shank) — Bitumen sheets for roof waterproofing

BS EN 13501 -1 : 2007 Fire classification of construction products and building elements — Classification using test data from reaction to fire tests

BS EN ISO 9001 : 2015 Quality management systems — Requirements

EN ISO 12572 : 2001 Hygrothermal performance of building materials and products — Determination of water vapour transmission properties

BBA 19/5653 PS1 Issue 2 Page 11 of 12

### **Conditions of Certificate**

#### **Conditions**

- 1 This Certificate:
- relates only to the product that is named and described on the front page
- is issued only to the company, firm, organisation or person named on the front page no other company, firm, organisation or person may hold or claim that this Certificate has been issued to them
- is valid only within the UK
- has to be read, considered and used as a whole document it may be misleading and will be incomplete to be selective
- is copyright of the BBA
- is subject to English Law.
- 2 Publications, documents, specifications, legislation, regulations, standards and the like referenced in this Certificate are those that were current and/or deemed relevant by the BBA at the date of issue or reissue of this Certificate.
- 3 This Certificate will be displayed on the BBA website, and the Certificate Holder is entitled to use the Certificate and Certificate logo, provided that the product and its manufacture and/or fabrication, including all related and relevant parts and processes thereof:
- are maintained at or above the levels which have been assessed and found to be satisfactory by the BBA
- continue to be checked as and when deemed appropriate by the BBA under arrangements that it will determine
- are reviewed by the BBA as and when it considers appropriate.
- 4 The BBA has used due skill, care and diligence in preparing this Certificate, but no warranty is provided.
- 5 In issuing this Certificate the BBA is not responsible and is excluded from any liability to any company, firm, organisation or person, for any matters arising directly or indirectly from:
- the presence or absence of any patent, intellectual property or similar rights subsisting in the product or any other product
- the right of the Certificate holder to manufacture, supply, install, maintain or market the product
- actual installations of the product, including their nature, design, methods, performance, workmanship and maintenance
- any works and constructions in which the product is installed, including their nature, design, methods, performance, workmanship and maintenance
- any loss or damage, including personal injury, howsoever caused by the product, including its manufacture, supply, installation, use, maintenance and removal
- any claims by the manufacturer relating to UKCA marking and CE marking.
- 6 Any information relating to the manufacture, supply, installation, use, maintenance and removal of this product which is contained or referred to in this Certificate is the minimum required to be met when the product is manufactured, supplied, installed, used, maintained and removed. It does not purport in any way to restate the requirements of the Health and Safety at Work etc. Act 1974, or of any other statutory, common law or other duty which may exist at the date of issue or reissue of this Certificate; nor is conformity with such information to be taken as satisfying the requirements of the 1974 Act or of any statutory, common law or other duty of care.