



<b>Number</b> BAW 09-311	 <p style="text-align: center;"><b>BDA Agrément Nr. BAW 09-311</b></p> <p style="text-align: center;"><b>Data Sheet Wall - Design</b></p> <p style="text-align: center;">To check the validity of this document please consult <a href="http://www.bda.nl">www.bda.nl</a></p>	<b>Category</b> Specific
<b>Date</b> 2009.02.14		<b>Phase</b> Design
<b>Code</b> 41BF56		<b>Subject</b> Vapour open cavity rain barrier
<b>Product</b>  <b>Supplier</b>  <b>Description</b>  <b>Scope (objective)</b>  <b>Frame of reference</b>  <b>Product characteristics</b>  <b>Ancillary items</b>  <b>Points of attention</b>	<p><b>Breather-Foil FR</b></p> <p>Yorkshire Building Services (Whitwell) Ltd. The Craggs Industrial Park Morven Street UK-S80 4AJ Creswell Derbyshire T.: +44 (0) 1909 721662, F.: +44 (0) 1909 721442 E.: technical@ybsinsulation.com, I.: www.ybsinsulation.com</p> <p>Reflective insulation and vapour open cavity rain barrier made of aluminium foil faced polyethylene bubble film laminate.</p> <p>Vapour open cavity rain barrier and reflective insulating layer for improving insulation to external cavity walls of timber frame construction, to be installed against the inner leaf sheathing within the cavity with the foil face on the clear cavity side.</p> <ol style="list-style-type: none"> <li>Directive BDA Agréments (Praktijkbladen), September 2008</li> <li>BDA Agrément Nr. BAW 09-312 Breather-Foil FR (phase: installation)</li> <li>BDA Agrément Nr. BAW 09-313 Breather-Foil FR (phase: regulations)</li> <li>BS 5250: 2002 Code of practice for control of condensation in buildings</li> <li>BS 5268 Code of practice for timber</li> <li>BS 5628 Part 3:2001 Code of practice for the use of masonry: materials and components, design and workmanship</li> <li>EN 12667:2001-02 Thermal performance of building materials and products – Determination of thermal resistance by means of guarded hot plate and heat flow meter methods – Products of high and medium thermal resistance</li> <li>EN 12153:2000 Curtain walling – Air permeability - Test method</li> <li>EN-ISO 6946:2008 Building components and building elements. Thermal resistance and thermal transmittance. Calculation method</li> <li>BS 4016:1997 Specification for flexible building membranes (breather type)</li> <li>BRE Test report nr. 210-258: Hygrothermal testing of Breather-Foil FR, 2002.10.30</li> <li>BRE Test report nr. 200132: Tests on Airtec FRB Breather Membrane<sup>1)</sup>, 2001.04.02</li> <li>Warrington Fire Research Centre Ltd. Test report nr. 121767: Determination of classification in accordance with BS 476, part 7: 1997, 2001.11.20</li> </ol> <p><sup>1)</sup> Now named Breather-Foil FR</p> <ul style="list-style-type: none"> <li>Thermal resistance of foil, bubble film laminate and minimum 20 mm clear cavity <math>R_g</math> (ref.7, 9) : 0,790 m<sup>2</sup>.K.W<sup>-1</sup></li> <li>Hemispherical thermal emittance of foil face : 0,05</li> <li>Thermal resistance, bubble film laminate only (ref. 7) : 0,125 m<sup>2</sup>.K.W<sup>-1</sup></li> <li>Nail tear resistance (ref.10,wet &amp; dry), minimal : 70 N</li> <li>Installed air permeability at 50 Pa BS EN 12153 : 36 m<sup>3</sup>.m<sup>-2</sup>.(24h)<sup>-1</sup></li> <li>Nominal thickness : 4 mm</li> <li>Nominal width : 1350/2620 mm</li> <li>Nominal length : 25/50 m</li> </ul> <ul style="list-style-type: none"> <li>Breather-Foil Insulation foil-backed tape with acrylic adhesive, width 75 mm</li> <li>14 mm staples or nails</li> <li>vapour control layer</li> </ul> <ol style="list-style-type: none"> <li>The product is delivered in rolls packed in a protective sealed bag and should include product name, dimensions, the BDA identification mark and the number of this Agrément.</li> <li><b>Wall insulation</b> <ul style="list-style-type: none"> <li>the building physical behavior of wall structures incorporating the insulation must be analyzed by a specialist;</li> <li>Breather-Foil FR must be installed in accordance with the requirements of the manufacturer's instructions and BDA Agrément Nr. BAW 09-312 Breather-Foil FR (phase: installation, ref.2);</li> <li>Breather-Foil FR must be applied to the inner leaf timber frame sheathing with the foil face of the bubble film facing outwards into the cavity, ensuring 75 mm horizontal overlaps are positioned to create a waterproofing lap.</li> </ul> </li> <li><b>Thermal performance aspects</b> <ul style="list-style-type: none"> <li>Breather-Foil FR provides a method to enhance the thermal insulation and act as a vapour open membrane (by means of open joints at every roll width) within external cavity walls with a timber frame inner leaf. Walls incorporating the insulation can be constructed to give a U-value below 0,35 W.m<sup>2</sup>.K<sup>-1</sup>. The thermal resistance of the product and associated clear cavity is given on page 1 of this document;</li> <li>the requirement for limiting the heat loss through the building fabric, including the effect of thermal bridging can be satisfied if the U values of the building elements do not exceed the maximum values in the relevant Elemental Methods given in the national Building Regulations of England and Wales (Approved Documents L), Scotland (Technical Standards J) and Northern Ireland (Technical Booklet F); further information on regulations is given in BDA Agrément Nr. BAW 09-313 Breather-Foil FR (phase: regulations, ref.3);</li> <li>a typical wall timber frame construction with vapour open cavity rain barrier is given in figure 1.</li> </ul> </li> </ol>	
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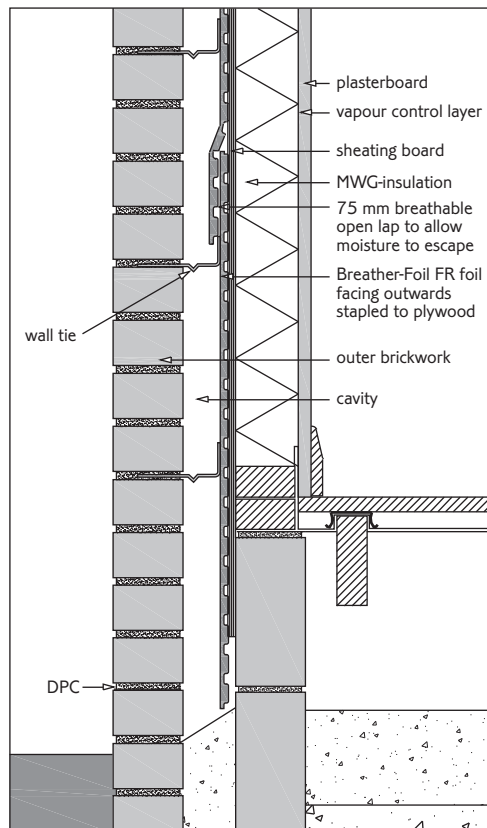
<b>Number</b> BAW 09-311	<div style="text-align: center;">  <h2 style="margin: 0;">BDA Agrément Nr. BAW 09-311</h2> <h3 style="margin: 0;">Data Sheet Wall - Design</h3> <p style="margin: 0;">To check the validity of this document please consult <a href="http://www.bda.nl">www.bda.nl</a></p> </div>	<b>Category</b> Specific
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**Points of attention (continued)**


4. **Condensation and water penetration risk**
  - walls incorporating the product will adequately limit the risk of interstitial condensation when designed in accordance with this Agrément and installed in accordance with BDA Agrément Nr. BAW 09-312 Breather-Foil FR (phase: installation, ref.2);
  - Breather-Foil FR presents no significant risk of water penetration provided that masonry cavity walls are designed and constructed to the requirements of BS 5628 Part 3 (ref.6) to prevent moisture penetration, that discontinuous cladding has appropriate laps and due attention is made of the building exposure rating. Where the clear cavity, after the installation of Breather-Foil FR, exceeds 50 mm the product can be used in any exposure zone;
  - it is essential that cavity walls incorporating the product in the cavity are designed in such a way that they contain the normal precautions against moisture ingress;
  - specifically the continuity of vapour control layers must be maintained at laps and joints;
  - all sorts of perforations should be kept to a minimum and well be sealed;
  - Breather-Foil FR does not absorb water by capillarity. Where Breather-Foil FR bridges dpc level, water is not transferred from the ground to the construction.
5. **Behaviour in relation to fire**
  - Breather-Foil FR will not impair the fire resistance performance of the walls. Since the insulation is combustible it must be adequately separated from: heat producing appliances, incinerators, hearths, ductwork for high temperature gases, flues, chimneys and fire places or recesses (see ref.3);
  - when tested to BS 476 Part 7 Surface spread of flame Breather-Foil FR is designated Class 1.
6. **Durability**

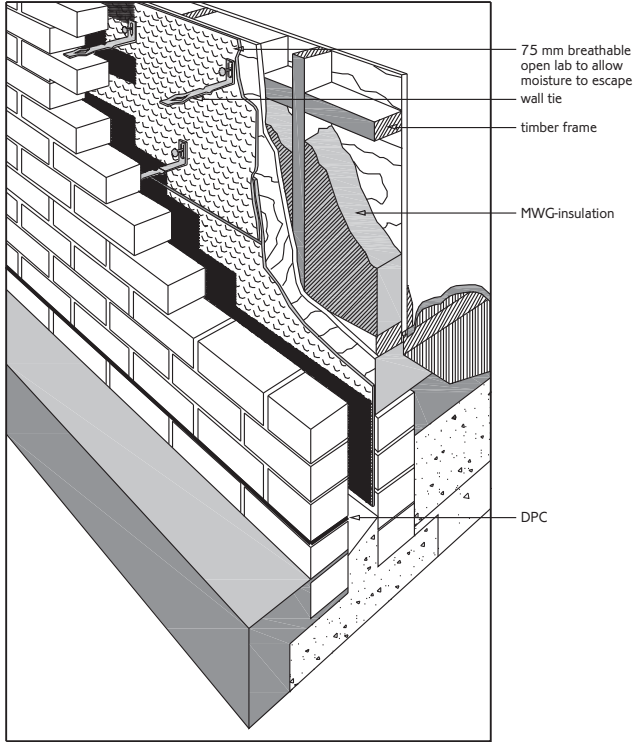
The product is stable, rot-proof and durable and will remain effective as an insulant and vapour open cavity rain barrier for the life of the building in which it is installed. There is no risk for moth or beetle infestation.

Figure 1 - typical wall timber frame construction with vapour open cavity rain barrier




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<b>Installation procedure (continued)</b>	<ul style="list-style-type: none"> <li>- when the product is cut to fit around openings or connections, gaps must be minimized; any exposed cut edges should be sealed with suitable tape, as provided by the Certificate holder;</li> <li>- the outer leaf must be built ensuring that the designed minimum clear cavity is maintained. After raising each masonry section, loose mortar must be cleaned from the insulation, not allowing mortar to fall into the cavity;</li> <li>- at external and internal corners Breather-Foil FR should be laid with a minimum 150 mm overlap. It should be wrapped around the corner and the overlap secured with staples;</li> <li>- at ground level Breather-Foil FR must extend below the level of internal flooring insulation. The installation of Breather-Foil FR should be carried out to the highest level of each wall;</li> <li>- during construction Breather-Foil FR will provide a temporary rain screen, but the external cladding should be completed as soon as possible. In exposed conditions the vertical laps must be secured with battens;</li> <li>- a typical installation built-up is given in figure 1.</li> </ul> <p><b>2. Delivery and site handling</b></p> <ul style="list-style-type: none"> <li>- the product is delivered to site in rolls packed in a protective bag sealed with a plastic tie. Fitting instructions are placed in the bag;</li> <li>- the rolls should be stored in clean, dry conditions, not exposed to sunlight;</li> <li>- the product must be protected from being dropped or crushed by objects. Care must be exercised when storing large quantities on site;</li> <li>- the product must not be exposed to open flame or other ignition sources and must be stored away from flammable material such as paint and solvents;</li> <li>- to ensure maximum performance of the product when installed, on site precautions must be taken to protect it from mud and dirt.</li> </ul> <p><b>3. Maintenance and repair</b></p> <ul style="list-style-type: none"> <li>- once installed, the product does not require any maintenance for the design life of the building, provided that it remains installed strictly in accordance with the requirements of this Agrément and of the manufacturer;</li> <li>- the manufacturer must continue to provide a technical consulting service.</li> </ul> <p><b>4. Regulations</b></p> <p>Further information on regulations is given in BDA Agrément Nr. BAW 09-313 Breather-Foil FR (phase: regulations, ref.3).</p> <p>Figure 1- Typical installation built-up</p> <div style="text-align: right;">  </div>
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<b>Regulations (continued)</b>	<p><b>2. Requirements: The Building (Scotland) Regulations 2004</b></p> <p><b>2.1</b> Regulations 8 (1) Durability of materials and workmanship</p> <ul style="list-style-type: none"> <li>- Breather-Foil FR is manufactured from acceptable materials and are considered to be adequately resistant to deterioration and wear under normal service conditions, provided they are installed in accordance with the requirements of BDA Agrément nr. 09-312 Breather-Foil FR (phase: installation, ref. 3).</li> </ul> <p><b>2.2 Regulation 9 Building Standards Construction</b></p> <p>Section 2 Fire</p> <ul style="list-style-type: none"> <li>- 2.4 cavity barriers - combustible materials are permitted in the cavity but require any opening to be sealed.</li> <li>- 2.5 Heat-producing, solid fuel burning or oil- or gas-fired installations - a wall, incorporating Breather-Foil FR can be designed and constructed to comply with these Standards, provided that they are isolated from the flue of a gas-fired, or solid fuel, or oil-fired heat-producing appliance by a separation. The insulation must be adequately separated from a fire place opening, recess, hearth or flue pipe, or from any heat-producing appliance.</li> </ul> <p>Section 3 Environment</p> <ul style="list-style-type: none"> <li>- 3.10 Precipitation - Breather-Foil FR can adequately resist the passage of moisture to the underlying structure provided the wall is constructed in accordance with BS 5628: Part 3 (ref.6) and the requirements of this certificate.</li> <li>- 3.15 Condensation - a wall formed using Breather-Foil FR in accordance with the requirements of BDA Agrément nr. 09-312 Breather-Foil-FR (phase: installation, ref. 3) and of BS 5250 (ref.4), can be designed and constructed to comply with these Standards.</li> </ul> <p>Section 6 Energy</p> <ul style="list-style-type: none"> <li>- 6.2.1. Conservation of fuel and power: the building fabric - external cavity walls can be designed and constructed with Breather-Foil FR to provide a U-value of less than <math>0.35 \text{ W.m}^{-2}\text{K}^{-1}</math>.</li> </ul> <p><b>3. Requirements: The Building Regulations (Northern Ireland) 2000</b></p> <ul style="list-style-type: none"> <li>- B2 Fitness of materials and workmanship - Breather-Foil FR is manufactured from materials which are considered to be suitably safe and acceptable for use as cavity wall insulation for an external wall.</li> <li>- C5 Resistance to ground moisture and weather - where Breather-Foil FR is installed within an external cavity wall, that wall can be designed and constructed so as to prevent the passage of moisture or moisture or water vapour through it. Advice is given in ref. 3.</li> <li>- C7 Condensation a wall incorporating Breather-Foil FR can be designed and constructed to prevent any harmful effect from moisture in the form of interstitial condensation.</li> <li>- E6 Internal fire spread: structure - combustible materials are permitted in an external cavity wall.</li> <li>- F2 Conservation of fuel and power - External cavity walls, incorporating Breather-Foil FR between the inner and outer external wall leaves, can be designed and constructed to provide a U-value no greater than <math>0.35 \text{ W.m}^{-2}\text{K}^{-1}</math>.</li> <li>- L2 Heat-producing appliances and associated constructions - a wall, incorporating Breather-Foil FR can be designed and constructed to comply with these Regulations, provided that the insulation is isolated from the flue of a gas-fired, or solid fuel or oil-fired heat-producing appliance or an incinerator. They must be adequately separated from a chimney or fireplace recess, from a flue pipe, from a hearth or from the appliance.</li> </ul>	
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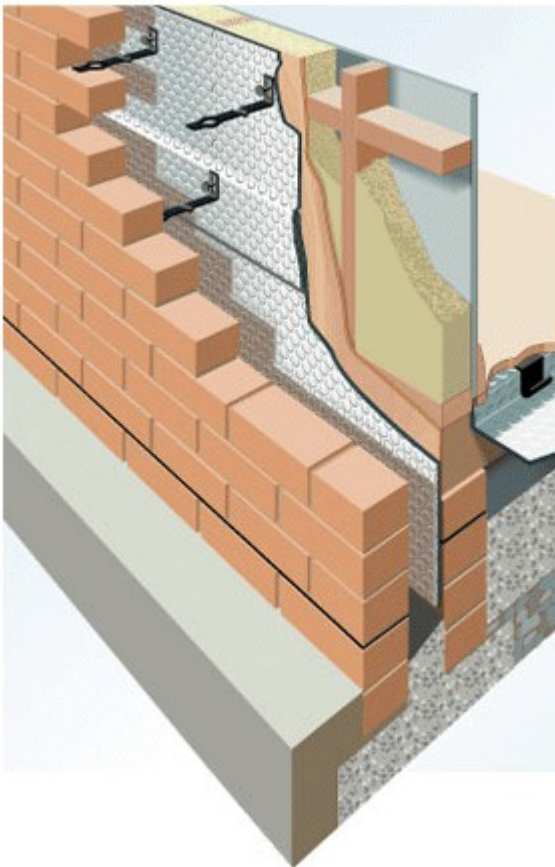
**CERTIFICATE NO. 08/0315**

YBS Insulation, Yorkshire Building Services (Whitwell) Ltd., The Craggs Industrial Park, Morven St., Creswell, Derbyshire S80 4AJ.  
Tel: 0044 1909 721662  
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**Breather-Foil FR<sup>®</sup>****System de revetment  
Dachbelagsystem**

The **Irish Agrément Board** is designated by Government to issue European Technical Approvals. Irish Agrément Board Certificates establish proof that the certified products are '**proper materials**' suitable for their intended use under Irish site conditions, and in accordance with the **Building Regulations 1997 to 2007**.

The **Irish Agrément Board** operates in association with the **National Standards Authority of Ireland (NSAI)** as the National Member of UEAtc.

**PRODUCT DESCRIPTION:**

This Certificate relates to Breather-Foil FR, an impermeable, reflective insulating membrane for timber frame walls which allows the timber structure to breathe by leaving joints open every 1350mm roll width. Breather-Foil FR consists of an aluminium foil faced polyethylene bubble film laminate. As Breather-Foil FR cannot be characterised by BS 4016:1997 *Specification for flexible building membranes (breather type)* it has not been tested to that standard and is therefore not a breather membrane as defined by BS 5250:1989 *Codes of practice for control of condensation in buildings*. However, it has been shown that when correctly used

and installed in accordance with this Certificate, Breather-Foil FR can improve thermal performance and prevent condensation from occurring. Its performance is dependent on the joints every 1350mm roll width remaining effectively open.

This Certificate certifies compliance with the requirements of the Building Regulations 1997 to 2007.

**USE:**

Breather-Foil FR is suitable for timber frame constructions. The product is water resistant and is used to prevent water passing to the timber structure. The product allows the timber structure to breathe by leaving joints open every 1350mm roll width. Any vapour which enters the wall construction from inside can pass into the wall cavity where it can be removed by air movement or condense and drain safely away. A vapour control layer must be utilised on the internal structure of the building and sealed correctly.

**MANUFACTURE AND MARKETING:**

The product is manufactured on behalf of and marketed by:

YBS Insulation,  
Yorkshire Building Services (Whitwell) Ltd.,  
The Craggs Industrial Park,  
Morven Street,  
Creswell,  
Derbyshire S80 4AJ.  
Tel: 0044 1909 721662  
Fax: 0044 1909 721442  
Email: [sales@ybsinsulation.com](mailto:sales@ybsinsulation.com)  
Website: [www.ybsinsulation.com](http://www.ybsinsulation.com)

## 1.1 ASSESSMENT

In the opinion of the Irish Agrément Board (IAB), Breather-Foil FR if used in accordance with this Certificate can meet the requirements of the Building Regulations 1997 to 2007, as indicated in Section 1.2 of this Irish Agrément Certificate.

## 1.2 BUILDING REGULATIONS 1997 to 2007

### REQUIREMENT:

#### *Part D – Materials and Workmanship*

**D3 – Breather-Foil FR**, as certified in the Irish Agrément Certificate, is comprised of 'proper materials' fit for their intended use (see Part 4 of this Certificate).

**D1 – Breather-Foil FR**, as certified in this Certificate, meets the requirements of the building regulations for workmanship.

#### *Part B – Fire Safety*

##### **B2 – Internal Fire Spread (Linings)**

Breather-Foil FR installed in accordance with this Certificate may be used on the internal surfaces of buildings to meet this requirement.

##### **B3 – Internal Fire Spread (Structure)**

Breather-Foil FR installed in accordance with this Certificate will not adversely affect the control of fire and smoke within concealed spaces in the structure or fabric of a properly designed building.

#### *Part C – Site Preparation and Resistance to Moisture*

##### **C4 – Resistance to Weather and Ground Moisture**

Breather-Foil FR, when used in accordance with Part 3 of this Certificate, will meet this requirement.

#### *Part L – Conservation of Fuel and Energy*

##### **L1 – Conservation of Fuel and Energy**

Breather-Foil FR, when installed and used in accordance with this Certificate, can achieve mean pressure ratings of less than  $8\text{m}^3/\text{hm}^2$ .

## 2.1 PRODUCT DESCRIPTION

Breather-Foil FR consists of an aluminium foil faced polyethylene bubble film laminate. A product specification is shown in Table 1.

	Value/Units
Thickness	4mm
Width	1350mm/2620mm
Length	50m/25m
Nail Tear Resistance	>70N
Surface Spread of Flame (BS 476-7)	Class 1
Colour	Silver upper surface / White lower surface
Installed Air Permeability @ 50Pa (IS EN 12153)	36m <sup>3</sup> /m <sup>2</sup> /day

**Table 1: Product Specification**

### 2.1.1 Ancillary Products

- Stainless steel staples
- Wall ties

## 2.2 MANUFACTURE

Breather-Foil FR is manufactured with a combination of nitrocellulose coated aluminium, bonded to a clear one-side treated LDPE on a solvent free laminator and allowed to cure. This laminate is then laminated to a Fire Retardant LDPE bubble membrane.

### 2.2.1 Product Quality Control

Quality control checks are carried out on the raw material, during production and on the final product. Quality control checks include:

- Appearance
- Dimensions
- Adequacy of bond

## 2.3 DELIVERY, STORAGE AND MARKING

Rolls are delivered to site wrapped in polyethylene, and each roll is supplied with a label. Label gives manufacturer's name and product description, IAB identification mark and IAB Certificate number. The rolls must be stored on a firm level dry base stacked on end, away from excessive heat and fully supported.

## 2.4 INSTALLATION

### 2.4.1 General

Breather-Foil FR must be installed in accordance with the manufacturer's instructions and the recommendations given in this Certificate.

### 2.4.2 Installation Procedure

Breather-Foil FR must be applied to the inner leaf timber frame sheathing with the foil face of the bubble film facing outwards into the cavity, ensuring 75mm horizontal overlaps are positioned to create a waterproofing lap. Breather-Foil FR is to be fixed with staples and secured with wall ties.

The outer leaf must be built ensuring that the designed minimum clear cavity is maintained. After raising each masonry section, loose mortar must be cleaned from the insulation, not allowing mortar into the cavity.

At external and internal corners, Breather-Foil FR should be laid with a minimum 150mm overlap. It should be wrapped around the corner and the overlap secured with staples.

Around openings the insulation must be carefully cut in the required positions.

At ground level, Breather-Foil FR must extend below the level of internal flooring insulation. The installation of Breather-Foil FR should be carried out to the highest level of each wall.

During construction, Breather-Foil FR will provide a temporary rainscreen, but the external cladding should be completed as soon as possible. In exposed conditions the vertical laps must be secured with battens.

### 3.1 GENERAL

Breather-Foil FR is suitable for timber frame constructions, which are defined as those designed and built in accordance with the relevant parts of BS 5268-1:1996 *Structural use of timber*.

### 3.2 STRENGTH

Breather-Foil FR will resist the loads associated with the installation of the material on to a timber frame stud wall.

The membrane may be damaged by high winds, careless handling or by vandalism and should not be left uncovered for longer than is absolutely necessary. Any damaged areas should be repaired or replaced before the final outer cladding is applied.

### 3.3 WEATHERTIGHTNESS

Tests confirm that Breather-Foil FR will resist the passage of water, wind-blown snow and dust into the interior of a building under all conditions to be found in a wall constructed to BS 5268:Part 1:1996 and BS 8000:Part 6:1990 *Code of practice for slating and tiling of roofs and claddings*.

Care must be taken to ensure that all timber in the cavity is covered by the membrane including the base timbers.

Particular attention should be given to ensure that adequate ventilation is provided and drainage to wall cavities must be catered for in accordance with the Building Regulations 1997 to 2007.

### 3.4 THERMAL INSULATION

For the purpose of U-value calculations to determine if the requirements of the Building Regulations 1997 to 2007 are met, it has been established by test that when the aluminium face of Breather-Foil FR faces into a cavity, the product will provide an additional thermal resistance, which can be incorporated into the calculations carried out in accordance with IS EN ISO 6946:1997 *Building components and building elements – Thermal resistance and thermal transmittance – Calculation method*. The ultimate thermal performance of the product will depend on the construction of the wall against which it is installed. The thermal resistance value shown in Table 2 relates to the total thermal resistance of the cavity incorporating Breather-Foil FR at the date of installation.

Element	Direction of heat flow	Thermal resistance value (m <sup>2</sup> K/W) of Breather-Foil FR within a 20mm cavity
Wall	Horizontal	0.790

**Table 2: Thermal Resistance Value**

#### 4.1 BEHAVIOUR IN FIRE

Breather-Foil FR achieved a Class 1 rating when tested in accordance with BS 476-7:1997 *Fire tests on building materials and structures – Method for classification of the surface spread of flame of products*.

Cavity barriers must be provided as indicated in Part 3.3 of TGD to Part B of the Building Regulations 1997 to 2007.

Toxicity – Negligible when used in a wall construction situation.

#### 4.2 WATER PENETRATION

Breather-Foil FR, when used in accordance with this Certificate, presents no significant risk of water penetration.

#### 4.3 WATER VAPOUR PENETRATION AND CONDENSATION RISK

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 barrier.

Breather-Foil FR has additional insulating value (see Section 3.4) and will maintain the frame sheathing at a higher temperature than for the same construction incorporating a conventional breather membrane. This will in turn assist in limiting the risk of interstitial condensation arising from breaches in the vapour control layer in the wall's internal lining. However it must not be relied upon as an alternative to conventional good practice for maintaining integrity of the vapour control layer.

As Breather-Foil FR cannot be characterised by BS 4016:1997 *Specification for flexible building membranes (breather type)* it has not been tested to that standard and is therefore not a breather membrane as defined by BS 5250:1989 *Codes of practice for control of condensation in buildings*. However, it has been shown that when correctly used and installed in accordance with this Certificate, Breather-Foil FR can improve thermal performance and prevent condensation from occurring. Its performance is dependent on the joints every 1350mm roll width remaining effectively open.

#### 4.4 DURABILITY

Breather-Foil FR will be unaffected by the normal conditions found in a timber frame wall and will have a life comparable with other elements of construction. However, the membrane like most similar materials must be protected from sunlight, flame and solvents.

#### 4.5 TESTS AND ASSESSMENTS WERE CARRIED OUT TO DETERMINE THE FOLLOWING:

- Dimensional tolerances
- Thermal properties
- Resistance to water penetration

- Air permeability
- Condensation risk
- Hygrothermal performance

#### 4.6 OTHER INVESTIGATIONS

- (i) Existing data on product properties in relation to fire, toxicity, environmental impact and the effect on mechanical strength/stability and durability were assessed.
- (ii) The manufacturing process was examined including the methods adopted for quality control, and details were obtained of the quality and composition of the materials used.
- (iii) Driving rain resistance was assessed.
- (iv) Hygrothermal testing was performed.

**5.1** National Standards Authority of Ireland ("NSAI") following consultation with the Irish Agrément Board ("IAB") has assessed the performance and method of installation of the product/process and the quality of the materials used in its manufacture and certifies the product/process to be fit for the use for which it is certified provided that it is manufactured, installed, used and maintained in accordance with the descriptions and specifications set out in this Certificate and in accordance with the manufacturer's instructions and usual trade practice. This Certificate shall remain valid for five years from date of issue so long as:

- (a) the specification of the product is unchanged.
- (b) the Building Regulations 1997 to 2007 and any other regulation or standard applicable to the product/process, its use or installation remains unchanged.
- (c) the product continues to be assessed for the quality of its manufacture and marking by NSAI.
- (d) no new information becomes available which in the opinion of the NSAI, would preclude the granting of the Certificate.
- (e) the product or process continues to be manufactured, installed, used and maintained in accordance with the description, specifications and safety recommendations set out in this certificate.
- (f) the registration and/or surveillance fees due to IAB are paid.

**5.2** The IAB mark and certification number may only be used on or in relation to product/processes in respect of which a valid Certificate exists. If the Certificate becomes invalid the Certificate holder must not use the IAB mark and certification number and must remove them from the products already marked.

**5.3** In granting Certification, the NSAI makes no representation as to;

- (a) the absence or presence of patent rights subsisting in the product/process; or
- (b) the legal right of the Certificate holder to market, install or maintain the product/process; or
- (c) whether individual products have been manufactured or installed by the Certificate holder in accordance with the descriptions and specifications set out in this Certificate.

**5.4** This Certificate does not comprise installation instructions and does not replace the manufacturer's directions or any professional or trade advice relating to use and installation which may be appropriate.

**5.5** Any recommendations contained in this Certificate relating to the safe use of the certified product/process are preconditions to the validity of the Certificate. However the NSAI does not certify that the manufacture or installation of the certified product or process in accordance with the descriptions and specifications set out in this Certificate will satisfy the requirements of the Safety, Health and Welfare at Work Act 2005, or of any other current or future common law duty of care owed by the manufacturer or by the Certificate holder.

**5.6** The NSAI is not responsible to any person or body for loss or damage including personal injury arising as a direct or indirect result of the use of this product or process.

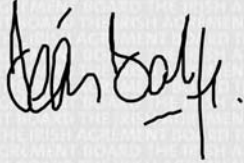
**5.7** Where reference is made in this Certificate to any Act of the Oireachtas, Regulation made thereunder, Statutory Instrument, Code of Practice, National Standards, manufacturer's instructions, or similar publication, it shall be construed as reference to such publication in the form in which it is in force at the date of this Certification.

## The Irish Agrément Board

This Certificate No. **08/0315** is accordingly granted by the NSAI to **YBS Insulation** on behalf of The Irish Agrément Board.

Date of Issue: **April 2008**

Signed



**Seán Balfe**  
Director of the Irish Agrément Board

Readers may check that the status of this Certificate has not changed by contacting the Irish Agrément Board, NSAI, Glasnevin, Dublin 9, Ireland. Telephone: (01) 807 3800. Fax: (01) 807 3842. [www.n Sai.ie](http://www.n Sai.ie)