Breather-Foil FR
INSULATING FIRE RETARDANT
Breather Membrane

NOW AVAILABLE
2.62m wide rolls!
Speed up your production!

Meets 2010 Building Regulations
NHBC Acceptance
Out-performs Traditional Breather Membrane
Independently Tested for Breathability
Fully Waterproof
Can Improve U-VALUE To 0.20 W/m²K! (See back page)

FIRE RETARDANT
CFC/HCFC Free

YOUR COMPANY LOGO AND COLOURED MEMBRANE HERE!
Call: 0844 99 100 44 For Details

www.ybsinsulation.com
Specially developed for use in timber-frame and modular building construction, Breather-Foil FR can greatly increase the U-value of the timber-frame wall. Whether pre-fabricated or assembled on site, Breather-Foil FR can afford the designer and contractor maximum flexibility when detailing timber-frame walls, without the expense of thicker timber frames or higher priced materials.

Breather-Foil FR is available with or without a removable coloured membrane (which can carry your company logo).

The Breather-Foil FR timber-framed wall system creates a wind-tight, draught-free, weather-sealed, yet vapour-permeable enclosure, when used in conjunction with external cladding, such as tile-hanging, masonry or weather-boarding.

The Breather-Foil FR timber-frame wall system also offers the following installation benefits:
- Breather-Foil FR protects the timber frame components during construction
- Breather-Foil FR details and installation procedures apply regardless of cladding type
- Breather-Foil FR will protect the timber and insulation components from the elements

Breather-Foil FR protects the timber frame

Breather-Foil FR repels water entering across the cavity. Runs over horizontal laps.

BUT any water vapour that does enter the wall can exit through the unique open bubble structure and out of the open laps.

(Vapour Control Layer prevents water vapour entering the wall. (Tested to BS EN 12153:2000 for water-tightness and air permeability))

Vapour flow detail at the reverse of Breather-Foil FR

Breather-Foil FR - timber frame build up

PLASTERBOARD
VAPOUR CONTROL LAYER
BREATHING BOARD
GLASS FIBRE INSULATION
75mm BREATHABLE OPEN LAP TO ALLOW MOISTURE TO ESCAPE
Breather-Foil FR FLAME RETARDANT BREATHER MEMBRANE FOIL FACING OUTWARDS STAPLED TO PLYWOOD
OUTER BRICKWORK
CAVITY
CHIPBOARD FLOORING STOPS 10MM SHORT OF STUD
100mm BLOCK WORK VENTED AIR SPACE
FOIL-TEC DOUBLE
CONCRETE INFILL
CONCRETE OVERRITE

Vapour Control Layer prevents water vapour entering the wall.
FACTORY ASSEMBLY
The timber framework is to be constructed with the sheathing board in position. Breather-Foil FR is rolled out into position and then stapled to the sheathing board. An overlap of 200mm must be allowed at the lower edge of the panel. This is to allow for coverage of the lower sole plate or upper floor joists. An overlap of 150mm must be allowed at the right hand edge of the panel. This is to allow for coverage and sealing of the vertical joint on assembled panels. The end overlap and the bottom overlap should not be stapled, but left loose for site fixing.

Breather-Foil FR INSTALLATION DETAILS

NOTE: Breather-Foil FR is a highly reflective material. To avoid on-site glare, YBS apply a tinted* membrane which must be removed before the brickwork progresses.

Any window and door openings are to be cut out with the Breather-Foil FR and can now be turned inside the opening and fixed to the studwork or cut flush to the edges of the opening.

STACKING/TRANSPORT
Stack and strap the panels, for transport, as normal. The bubbles compress slightly under load but DO NOT burst. They will reform once the panel is erected. The smooth surface of BF-FR means the timber panels slide off each other resulting in less damage.

SITE WORK
Panels are erected in to position with the overlaps to the bottom and to the right (looking from outside). After fixing the panels, the vertical overlaps are stapled.

YBS Breather-Foil FR wall ties are fixed along the ‘marked’ vertical stud line as the external brick wall is built. The anti-glares membrane should be peeled off over the ties as the brick work progresses.

SITE WORK EXTERIOR
If left exposed use edge battens fixed all around the parameter to help prevent wind lifting and damaging the Breather-Foil FR in extreme conditions.

CLADDINGS FOR TIMBER-FRAMED WALL SYSTEMS
Breather-Foil FR can be used in conjunction with most external claddings, such as tile-hanging, masonry or weather-boarding, as shown below.

* Various coloured anti-glares membranes are available - call: 0844 99 100 44
Breather-Foil FR has been Rainscreen/Watertightness acceptable limits. The timber structure was well within of time. Moisture content of the and left for an extended period was subjected to extreme Breather-Foil FR by TRADA - and BDA Hygrothermal research by the BRE and supervised YBS Technical on: Please contact Technical Data - Breather-Foil FR U-Values Many U-value combinations are available. All U-values using Combined Method - timber content at15%. Other materials to BRE conventions for U-values or using manufacturers’ certified data. Mineral fibre to new European GE marking.

<table>
<thead>
<tr>
<th>Construction Type</th>
<th>Wall</th>
<th>Normal</th>
<th>High</th>
<th>B550/50 dry/ moist occupany</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exposure</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internal surface emissivity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>External surface emissivity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Building use</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Measured Values of Airflow

In airflow tests by the BRE, Breather-Foil FR allowed more air out than a standard breather membrane.

Breather-Foil FR - Technical Specification

The investigation on thermal performance has been performed according to EN 12667: "Thermal performance of building materials and products - Determination of thermal resistance by means of guarded hot plate and heat flow meter methods - Product of high and medium thermal resistance (2001-02). This meets all requirements of EN1443 for use as a thermal insulation

Breather-Foil FR Bubble 0.121 W/m²K
Breather-Foil FR Cavity 0.649 W/m²K
Breather-Foil FR - Total Thermal Resistance 0.770 W/m²K
Vapour Resistance 0.40 MNs/m²/h
Installed air permeability at 50Pa BS EN 12153: 54m³/m² (24hr)
Nail Tear Resistance BS4016 (wet & dry) 0 min 70N
Environmental CFC & HCFC Free

Dimensions

- Thickness 4mm
- Width 1350mm/260mm
- Length 50m/25m
- Joining Strip (to suit truss depth) 270, 337, 455mm x 50m
- Foil Tape 50m x 75mm (24 rolls/box)