



## Wall insulation

From its wide range of insulation products, YBS offers the following wall insulation: **SuperQuilt** insulation blanket, **Therma-Flect** wall board, **Airtec** insulation, **Breather-Foil FR** insulating fire retardant breather membrane & **Non-Itch** insulation for cavity & timber frame walls. All products are manufactured in the UK and are CFC- & HCFC-free. YBS Insulation is a UK market leader in reflective insulation technology with additional sales offices spread throughout Europe & a wide distribution network.

**Introduction** YBS Insulation has grown steadily over the last 15 years from a one-man operation producing one product in 1994 to the large manufacturing and distribution company it is today, with a comprehensive portfolio of products developed to suit all of its customers' needs.

### SuperQuilt insulation blanket

**Applications** **SuperQuilt** is for timber-framed walls, cavity walls and dry lining.

**Authority** **SuperQuilt** is BDA Agrément tested to BAW 09-341, BAW 09-342 and BAW 09-343.

**Description** Product comprises multi-layers of insulation which enable it to insulate against conduction, convection and radiation. Joints are sealed with YBS foil tape.

### Dimensions, weight

Thickness: 40 mm  
Rolls: 1.5 x 10 m Roll weight: 13 kg

**Liquids** Vapour resistance (RV): 1569 MN/g

**Heat** U-values to meet all requirements can be achieved.

### Therma-Flect wall board

**Applications** **Therma-Flect** is a general purpose cavity insulation board for new build and refurbishment applications.

**Description** **Therma-Flect** is offered in 2 forms - **EPS Silver** and **PUR Gold**. Each has a 50 mm overlap to bottom and right edges to provide an impervious barrier to prevent ingress of moisture yet allow exit of internal moisture.

**Composition, manufacture** Both boards have a bubble insulating foil membrane which acts as a thermal layer. On **EPS Silver** this is affixed to a high performance, expanded polystyrene board with fire retardant additive; on **PUR Gold** this is affixed to a polyurethane board which has a TCEP fire retardant.

### Dimensions

450 mm x 1200 mm  
Tolerance: -0 mm to +3 mm  
Foil tape: 50 mm x 50 mm

### Heat

**Thermal conductivity (W/mK)**-  
Expanded polystyrene: 0.030  
Polyurethane: 0.023

**Thermal resistance** for bubble foil:  
0.79 m<sup>2</sup>K/W (includes airspaces)

U-values to meet all requirements can be achieved.

### Airtec insulation

**Applications** **Airtec** may be used within cavity walls or on the inner face of dry lining insulation systems. In both cases it may be used with thermal and medium/dense blocks.

**Description** **Airtec** is a high performance, insulation material available as **Airtec-Single**, **Airtec-Double** and, with a fire retardant additive, **Airtec FR**.

**Composition, manufacture** **Airtec** is a multi-layer, air bubble film insulation with aluminium bonded to one face, as **Airtec-Single**, or to both faces, as **Airtec-Double**. The aluminium is coated with polythene to increase durability and corrosion resistance.

### Dimensions

Thickness: 4 mm  
Roll widths: 1050, 1200, 1500 mm  
Roll length: 25 m

Foil tape: 50 m x 75 mm

**Heat** Thermal resistance (m<sup>2</sup>K/W)

Bubble foil: 0.125

**Airtec-Single\*** 0.790

**Airtec-Double\*** 1.455

\* with cavity of thermal resistance 0.665 m<sup>2</sup>K/W

### Breather-Foil FR insulating fire retardant breather membrane

**Applications** **Breather-Foil FR** is designed for use in timber frame and modular buildings to increase wall U-values. It protects timber frame components during construction and creates a wind-tight, draught-free, weather sealed, vapour permeable enclosure when used with external cladding.

**Description** **Breather-Foil FR** is a multi-layer aluminium bubble film insulation, protected with a special coating to give durability and corrosion resistance. It is equivalent to 15 mm polyurethane insulation.

### Dimensions

Thickness: 4 mm  
Roll width: 1350, 2620 mm  
Roll length: 25, 50 m

**Appearance** Colour is silver foil and white bubble.

**Mechanics** Nail tear resistance to BS 4016 (wet and dry): min 70 N

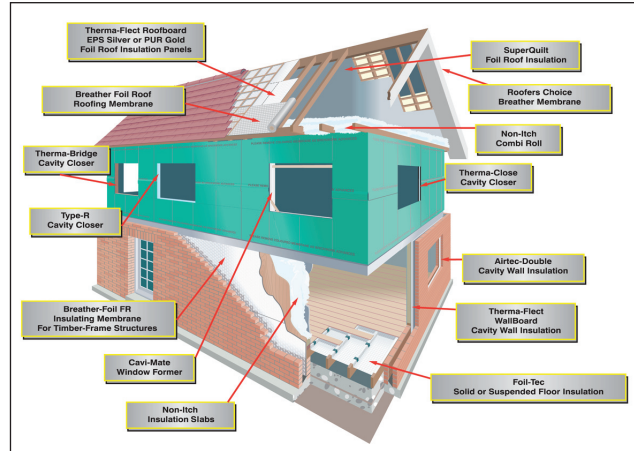
**Heat** Thermal resistance (m<sup>2</sup>K/W)

**Breather-Foil FR** bubble: 0.125

**Breather-Foil FR** cavity: 0.665

### Non-Itch insulation

**Applications** **Non-Itch** insulation may be used within cavity walls with all types of building blocks and in timber frame constructions.



**Description** **Non-Itch** insulation comprises a non-irritant, user-friendly material that is free from floating fibres or dust. Manufacture is from recycled plastic bottles and the material is fully recyclable.

### Dimensions

#### Cavity wall insulation

Thickness: 65, 75, 85, 100 mm  
Width: 450 mm Length: 1.2 m

#### Timber frame wall insulation

Thickness: 90, 140 mm  
Width: 550 mm Length: 1.17 m

#### Appearance

White

#### Mechanics

Tensile strength: 83.3 kPa.

#### Fire

**Non-Itch** passed fire test BS 5803: Part 4.

#### Gases

Water vapour diffusion resistance factor: 1.77

#### Liquids

**Non-Itch** is unaffected by water; water absorption (kg/m<sup>2</sup>):

short term - 0.88 long term - 0.96

#### Biological

**Non-Itch** is not affected by mould, mildew or rot and is resistant to vermin and insect attack.

#### Heat

**Thermal conductivity (W/mK):** 0.039

U-values to meet all requirements can be achieved.

#### Sound

**Non-Itch** has excellent sound absorption properties.

#### Compatibility

**Non-Itch** is compatible with common building products.

#### Durability

**Non-Itch** does not deteriorate over time and has a life expectancy of over 50 years.

## SUPPLY, SERVICES

All products are supplied through a wide range of merchants and distributors, details of whom are

available from the company. Full technical advice including U-value calculations and condensation risk analysis is available to specifiers. Full installation details are supplied.

## REFERENCES

Further information on the following products is available in this edition of the RIBA Product Selector:  
GRP decorative and structural mouldings - canopies, bay and porch roofs\* Section (31.5)  
GRP decorative and structural mouldings - dormer windows, chimneys\* Section (37)  
Non-Itch loft insulation Section (T)  
Roof insulation Section (47)  
\* from YBS Composites

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