

## Natural Building Technologies

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Agrément Certificate  
**08/4549**  
Product Sheet 1

### PAVACLAD SYSTEM

### ISOLAIR AND PAVATHERM-PLUS WOOD FIBRE INSULATION BOARDS

#### PRODUCT SCOPE AND SUMMARY OF CERTIFICATE

This Certificate relates to Isolair and Pavatherm-Plus Wood Fibre Insulation Boards, for use as thermal insulation as part of the Pavaclad system, on new or existing timber framed, steel framed or masonry walls in conjunction with an external masonry leaf or weathertight ventilated and drained cladding systems, in domestic and non domestic buildings up to 18 m. This Certificate does not cover specific types of outer cladding or frame structures.

#### AGRÉMENT CERTIFICATION INCLUDES:

- factors relating to compliance with Building Regulations where applicable
- factors relating to additional non-regulatory information where applicable
- independently verified technical specification
- assessment criteria and technical investigations
- design considerations
- installation guidance
- regular surveillance of production
- formal three-yearly review.



#### KEY FACTORS ASSESSED

**Thermal performance** — the products will contribute to a wall achieving design U values that are specified for meeting a buildings Target Emission Rate (see section 5).

**Condensation risk** — the products can contribute to reducing the risk of surface and interstitial condensation (see section 6).

**Behaviour in relation to fire** — the products are combustibile and have a classification of Class E for reaction to fire in accordance with BS EN 13501-1 : 2007 (see section 7).

**Durability** — the products will have a life equivalent to that of the wall structure in which they are incorporated (see section 13).

The BBA has awarded this Agrément Certificate to the company named above for the products described herein. These products have been assessed by the BBA as being fit for their intended use provided they are installed, used and maintained as set out in this Certificate.

On behalf of the British Board of Agrément

Chris Hunt  
Head of Approvals — Physics

Greg Cooper  
Chief Executive

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*The BBA is a UKAS accredited certification body — Number 1113. The schedule of the current scope of accreditation for product certification is available in pdf format via the UKAS link on the BBA website at [www.bbacerts.co.uk](http://www.bbacerts.co.uk)*

*Readers are advised to check the validity and latest issue number of this Agrément Certificate by either referring to the BBA website or contacting the BBA direct.*

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# Regulations

In the opinion of the BBA, Isolair and Pavatherm-Plus Wood Fibre Insulation Boards, if used in accordance with the provisions of this Certificate, will meet or contribute to meeting the relevant requirements of the following Building Regulations:



## The Building Regulations 2000 (as amended) (England and Wales)

|              |              |   |
|--------------|--------------|---|
| Requirement: | C2(c)        | Resistance to moisture  |
| Comment:     |              | The products can contribute to minimising the risk of surface and interstitial condensation. See section 6.1 and 6.3 of this Certificate. |
| Requirement: | L1(a)(i)     | Conservation of fuel and power  |
| Comment:     |              | The products can contribute to meeting this Requirement. See sections 5.3 to 5.6 of this Certificate.                                     |
| Requirement: | Regulation 7 | Materials and workmanship   |
| Comment:     |              | The products are acceptable. See section 13 and the <i>Installation</i> part of this assessment.  |



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

|             |         |   |
|-------------|---------|---|
| Regulation: | 8(1)(2) | Fitness and durability of materials and workmanship   |
| Comment:    |         | The products can contribute to a construction satisfying this regulation. See sections 12 and 13 and the <i>Installation</i> part of this Certificate.  |
| Regulation: | 9       | Building standards – construction   |
| Standard:   | 3.15    | Condensation  |
| Comment:    |         | The products can contribute to minimising the risk of surface and interstitial condensation, with reference to clauses 3.15.1 <sup>(1)</sup> , 3.15.4 <sup>(1)</sup> and 3.15.5 <sup>(1)</sup> . See sections 6.2 and 6.3 of this Certificate.  |
| Standard:   | 6.1     | Carbon dioxide emissions  |
| Standard:   | 6.2     | Building insulation envelop   |
| Comment:    |         | The products can contribute to satisfying clauses, or parts of 6.1.0 <sup>(1)(2)</sup> to 6.1.5 <sup>(1)(2)</sup> , 6.1.6 <sup>(1)</sup> , 6.1.7 <sup>(2)</sup> and 6.2.0 <sup>(1)(2)</sup> to 6.2.12 <sup>(1)(2)</sup> of these Standards. See section 5.3 to 5.6 of this Certificate.<br>(1) Technical Handbook (Domestic).<br>(2) Technical Handbook (Non-Domestic). |



## The Building Regulations (Northern Ireland) 2000 (as amended)

|             |          |   |
|-------------|----------|---|
| Regulation: | B2       | Fitness of materials and workmanship  |
| Comment:    |          | The boards are acceptable. See section 13 and the <i>Installation</i> part of this Certificate                        |
| Regulation: | B3(2)    | Suitability of certain materials  |
| Comment:    |          | The products do not normally require maintenance. See section 12 of this Certificate.                                 |
| Regulation: | C5       | Condensation  |
| Comment:    |          | The products can contribute to minimising the risk of interstitial condensation. See section 6.3 of this Certificate. |
| Regulation: | F2(a)(i) | Conservation measures   |
| Regulation: | F3       | Target carbon dioxide Emissions Rate  |
| Comment:    |          | The products can contribute to meeting these Regulations. See sections 5.3 to 5.6 of this Certificate.                |

## Construction (Design and Management) Regulations 2007

## Construction (Design and Management) Regulations (Northern Ireland) 2007

Information in this Certificate may assist the client, CDM co-ordinator, designer and contractors to address their obligations under these Regulations.

See section: 2 *Delivery and site handling* (2.2)

# Non-regulatory Information

## NHBC Standards 2008

NHBC accepts the use of Isolair and Pavatherm-Plus Wood Fibre Insulation Boards, when installed and used in accordance with this Certificate, in relation to *NHBC Standards*, Chapter 6.1 *External masonry walls*, Chapter 6.2 *External timber framed walls* and 6.10 *Light steel framed walls and floors*.

## Zurich Building Guarantee Technical Manual 2007

In the opinion of the BBA, Isolair and Pavatherm-Plus Wood Fibre Insulation Boards, when installed and used in accordance with this Certificate, satisfies the requirements of the *Zurich Building Guarantee Technical Manual*, Section 4 *Superstructure*, Sub-sections *External walls – masonry*, *External walls – thermal insulation*, *External walls – timber frame* and *External walls – steel frame*.

## General

This Certificate relates to Isolair and Pavatherm-Plus Wood Fibre Insulation Boards, used as part of the Pavaclad system. The Pavaclad system provides insulation to masonry, timber or steel-framed walls with a ventilated and drained cavity between the face of the insulation boards and a weather-resisting outer cladding.

## Technical Specification

### 1 Description

1.1 Isolair and Pavatherm-Plus Wood Fibre Insulation Boards are wood fibre insulation boards, manufactured in accordance with BS EN 13171 : 2001. The Pavatherm-Plus board includes an outer layer of 20 mm thick Isolair board bonded to the Pavatherm product.

1.2 The boards contain a maximum of 1.5% PVAc adhesive, 0.7% paraffin and 4% (Pavatherm-Plus), or 6% (Isolair) latex and have the nominal characteristics given in Table 1.

Table 1 Nominal characteristics

| Characteristics (units)                                   | Board type                       |                                  |
|---|----------------------------------|----------------------------------|
|   | Pavatherm-Plus                   | Isolair                          |
| Length <sup>(1)</sup> (mm)                                | 1600                             | 2500                             |
| Width (mm)  | 800                              | 770                              |
| Thickness (mm)  | 60, 80, 100                      | 22, 35, 60                       |
| Declared overall thermal conductivity ( $Wm^{-1}K^{-1}$ ) | 0.043                            | 0.047                            |
| Nominal density ( $kgm^{-3}$ )                            | 180                              | 250                              |
| Vapour resistivity ( $MNs^{-1}$ )                         | 25                               | 25                               |
| Edge detail   | tongue-and-groove<br>(all edges) | tongue-and-groove<br>(all edges) |

(1) Other sizes available.

1.3 Ancillary products (outside the scope of this assessment) used with the boards are:

- Pavatex Pavatape — a butyl rubber tape with laminated aluminium foil of 150 mm width
- Pavatex primer — for use on cut pieces/edges, prior to taping
- Pavatex system glue — in a dispensing gun
- adequate fixings for timber frame, solid timber, steel frame, concrete and masonry structures according to the Certificate holder's instructions, for example:
  - fixings for timber frame/solid timber — Starfix Thor Helical and/or Helifix Inskew 600 and/or EJOT TKR fixings
  - fixings for steel frame — EJOT TKR
  - fixings for masonry — EJOT SDF-S-V.

### 2 Delivery and site handling

2.1 The manufacturer's name and product lot number are printed on at least one board per pallet/pack. Boards are delivered to the site with cardboard to protect the edges. Each pack is labelled with the manufacturer's name, product name, board dimensions, product code, production lot numbers and the BBA logo incorporating the number of this Certificate.

2.2 Where possible, packs should be stored inside. If stored outside, they should be off the ground on a clean, dry, level surface and under cover to protect against moisture and mechanical damage. Flammable materials and ignition sources should not be permitted in the vicinity.

2.3 Contact with solvent-based wood preservatives, paint thinners and solvents, should be avoided.

# Assessment and Technical Investigations

The following is a summary of the assessment and technical investigations carried out on Isolair and Pavatherm-Plus Wood Fibre Insulation Boards.

## Design Considerations

### 3 General

3.1 The products will be effective in reducing the thermal transmittance (U value) of walls and can also contribute to limiting heat loss at junctions and around openings.

3.2 Care must also be taken in the overall design and construction of elements incorporating the products to ensure appropriate:

- sheathing or bracing. The boards must not be relied on to provide any structural contribution, eg racking strength
- fire resistance, for both elements and junctions
- cavity barriers are provided.
- resistance to the ingress of precipitation and moisture from the ground

3.3 When specifying very wide cavities or deep timber frames, non standard products and detailing solutions may need to be considered.

3.4 The wall and subframe should be structurally sound and should have been designed and constructed in accordance with the following standards :

- timber — BS 5268-2 : 2002, BS 5268-5 : 1989, BS 5589 : 1989 and BS EN 351-1 : 1996.
- steel — BS 5950-5 : 1998
- masonry — BS 5628-1 : 2005, BS 5628-3 : 2005, BS 8110-1 : 1997, BS 8110-2 : 1985, BS EN 1996-2 : 2006.

3.5 The products are for use in any exposure zone provided a clear residual cavity width of at least 50 mm is maintained.

3.6 In conjunction with an appropriate cladding, the boards may be used in any exposure zone, subject to the construction being deemed suitable.

3.7 The construction should be made weathertight as soon as practically possible to ensure maximum protection of the insulating boards.

### 4 Practicability of installation

The product can be readily installed by operatives experienced with this type of product. Installation should be strictly in accordance with the Certificate holder's instructions.

### 5 Thermal performance

5.1 Calculations of the thermal transmittance (U value) of specific external wall constructions should be carried out in accordance with BS EN ISO 6946 : 1997 and BRE<sup>(1)</sup> report (BR 443 : 2006) *Conventions for U-value calculations*, using the declared thermal conductivity ( $\lambda_{90/90}$  value) of the boards (Pavatherm-Plus  $\lambda$  0.043 Wm<sup>-1</sup>K<sup>-1</sup> and Isolair  $\lambda$  0.047 Wm<sup>-1</sup>K<sup>-1</sup>). Typical U values are shown in Table 2.

(1) Building Research Establishment.

Table 2 U values for example building constructions

| Product thickness (mm) | Masonry <sup>(1)</sup> | Timber <sup>(2)</sup> | Steel <sup>(3)</sup> |
|------------------------|------------------------|-----------------------|----------------------|
| 60                     | 0.16                   | 0.17                  | 0.27                 |
| 80                     | 0.15                   | 0.15                  | 0.21                 |
| 100                    | 0.14                   | 0.14                  | 0.18                 |

(1) Masonry — lime skim/plaster, Thermoplan ZT9/ZV9 masonry block, Pavatherm-Plus insulation.

(2) Timber — drylined onto hemp batts, OSB board fixed to 140 mm timber frame, Pavatherm-Plus fixed to outer frame surface.

(3) Steel — dry lined on battens on OSB board, steel frame (100 mm), Pavatherm insulation.

5.2 The boards are placed on the outside of the wall system or masonry substrate and additional insulation may be required in order to meet thermal requirements.

5.3 The boards can contribute to achieving the following design U values:



#### England and Wales and Northern Ireland

- 0.35 Wm<sup>-2</sup>K<sup>-1</sup> required for 'notional' dwellings in SAP 2005 and buildings other than dwellings in SBEM (see also section 5.2)

- 0.35 Wm<sup>-2</sup>K<sup>-1</sup> limit average specified in Approved Documents L1A (Table 2) and L2A (Table 4), and Technical Booklets F1 (Table 2.2) and F2 (Table 2.4) (see also section 5.2)
- 0.70 Wm<sup>-2</sup>K<sup>-1</sup> limit for an individual element specified in Approved Documents L1A (Table 2) and L2A (Table 4), Technical Booklets F1 (Table 2.2) and F2 (Table 2.4).

### Scotland

- 0.20 Wm<sup>-2</sup>K<sup>-1</sup> required for the 'simplified approach — solid fuel package 6' 'notional' dwelling in Mandatory Standard 6.1, clause 6.1.6<sup>(1)</sup>
- 0.25 Wm<sup>-2</sup>K<sup>-1</sup> required for 'notional' dwellings in SAP 2005 (for Scotland) and the 'simplified approach — packages 1 to 5' in Mandatory Standard 6.1, clause 6.1.6<sup>(1)</sup>
- 0.30 Wm<sup>-2</sup>K<sup>-1</sup> limit average specified in Mandatory Standard 6.2, clause 6.2.1<sup>(1)(2)</sup>
- 0.70 Wm<sup>-2</sup>K<sup>-1</sup> limit for an individual element specified in Mandatory Standard 6.2, clause 6.2.1<sup>(1)(2)</sup>.

1) Technical Handbook (Domestic).

(2) Technical Handbook (Non-Domestic).

5.4 Where a proposed wall U value is not better than (or is greater than in Scotland) the relevant 'notional' value specified in section 5.3, additional energy saving measures will be required in the building envelope and/or services to achieve the required overall carbon dioxide emission rate reduction of about 20% in dwellings (18% to 25% in Scotland) and 23% to 28% in buildings other than dwellings.

5.5 The boards can maintain or contribute to maintaining continuity of thermal insulation at junctions between the external wall and the other building elements. Guidance in this respect, and on limiting heat loss by air infiltration, can be found in:

**England and Wales** — *Limiting thermal bridging and air leakage: Robust construction details for dwellings and similar buildings* TSO 2002

**Scotland** — Accredited Construction Details (Scotland)

**Northern Ireland** — Accredited Construction Details (version 1.0).

5.6 Compliance with the guidance referred to in section 5.5 will allow the use of the default psi values from Table 3 of BRE Information Paper 1/06 *Assessing the effects of thermal bridging at junctions and around openings* and Table K1 of *The Government's Standard Assessment Procedure for Energy Rating of Dwellings* (SAP 2005), in Target Emission Rate calculations to SAP 2005 or the Simplified Building Energy Model (SBEM) ('simplified approach' for Scotland). Advice may be sought from the Certificate holder if better values are considered achievable.

## 6 Condensation risk

### Surface condensation



6.1 The risk of surface condensation on walls will be limited adequately when the thermal transmittance (U value) does not exceed 0.7 Wm<sup>-2</sup>K<sup>-1</sup> at any point, and the junctions with other elements are designed in accordance with the relevant requirements of section 5.5.



6.2 The risk of surface condensation on walls will be limited adequately when the thermal transmittance (U value) does not exceed 1.2 Wm<sup>-2</sup>K<sup>-1</sup> at any point. Guidance may be obtained from Section 8 of BS 5250 : 2002 and BRE report (BR 262 : 2002) *Thermal insulation: avoiding risks*.

### Interstitial condensation



6.3 The risk of interstitial condensation in walls incorporating the products will be adequately limited when they are designed and constructed in accordance with BS 5250 : 2002 (Section 8 and Annex D).

## 7 Behaviour in relation to fire

7.1 The boards are combustible and have achieved a Class E classification for reaction to fire to BS EN 13501-1 : 2007. They cannot be used in walls in a building having a storey 18 m or more above ground level.

7.2 Cavities in walls incorporating the products must incorporate cavity barriers at edges, around openings and at junctions with fire-resisting elements in accordance with the relevant provisions of the national Building Regulations and relevant purpose group. The design and installation of cavity barriers must take into account any anticipated differential movement, for example between the timber frame and masonry claddings.

7.3 Walls incorporating the products must meet the relevant requirements for fire resistance, and continuity of fire resistance at junctions with fire-resisting elements, in accordance with the relevant provisions of the national Building Regulations.

## 8 Strength and stability

8.1 The wall or sub-frame to which the products are fixed should be structurally sound and constructed in accordance with sections 3.2 to 3.7. However, when designing the wall for strength, stability and racking, no contribution from the insulation should be assumed.

8.2 Wind loads should be calculated in accordance with BS EN 1991-1-4 : 2005 and BS 6399-2 : 1997. The higher-pressure coefficients applicable to corners of buildings should be used.

8.3 The adequacy of fixing to the structural frame or substrate for specific installations is outside the scope of this Certificate and must be verified by a suitably qualified engineer.

8.4 The cladding must be fixed to the wall or masonry substrate and designed in accordance with relevant standards and requirements.

## 9 Liquid water penetration

9.1 Masonry external walls must be constructed in accordance with BS 5628-3 : 2005 to resist the ingress of water.

9.2 Care must be taken to ensure that the types of façades and wall finishes, and the design and detailing around openings are appropriate for the anticipated exposure conditions and if appropriate, resist the movement of the frame.

9.3 A breather membrane may be required on the outside of the insulation for temporary protection before the cladding is installed.

## 10 Damp proofing

10.1 To resist the passage of moisture from the ground, adequate damp-proof courses and membranes must be provided in accordance with conventional practice and BS 8215 : 1991.

10.2 The boards must not bridge the dpc in walls. Dampness from the ground will not pass through to the inner leaf provided the cavity wall is detailed in accordance with the requirements and provisions of the national Building Regulations:

**England and Wales** — Approved Document C2(a)

**Scotland** — Mandatory Standard 3.4, clause 3.4.5<sup>(1)(2)</sup>

(1) Technical Handbook (Domestic).

(2) Technical Handbook (Non-Domestic).

**Northern Ireland** — Technical Booklet C, Section 1.6.

## 11 Proximity of flues and appliances

The boards are combustible and must be separated from fireplaces and flues. The following provisions of the national Building Regulations should be followed:

**England and Wales** — Approved Document J – Paragraph 2.18 and Diagram 2.5

**Scotland** — Mandatory Standard 3.19, clauses 3.19.1<sup>(1)(2)</sup> to 3.19.4<sup>(1)(2)</sup> and 3.19.8<sup>(1)(2)</sup>

(1) Technical Handbook (Domestic).

(2) Technical Handbook (Non-Domestic).

**Northern Ireland** — Technical Booklet L – Paragraph 2.17 and Diagram 2.4

## 12 Maintenance



As the products are confined within the wall construction and have suitable durability (see section 13) maintenance is not required. However, it must be ensured that damage occurring before enclosure is repaired (see section 16).

## 13 Durability



When installed in accordance with the Certificate holder's instructions, the products will have a life equivalent to that of the structure in which it is incorporated.

# Installation

## 14 General

14.1 Where Isolair and Pavatherm-Plus Wood Fibre Insulation Boards are to be used on a timber frame, installation must not be carried out until the moisture content of the timber is less than 20%.

14.2 A typical application of the boards on to a timber frame, as part of the Pavaclad system is shown in Figure 1.

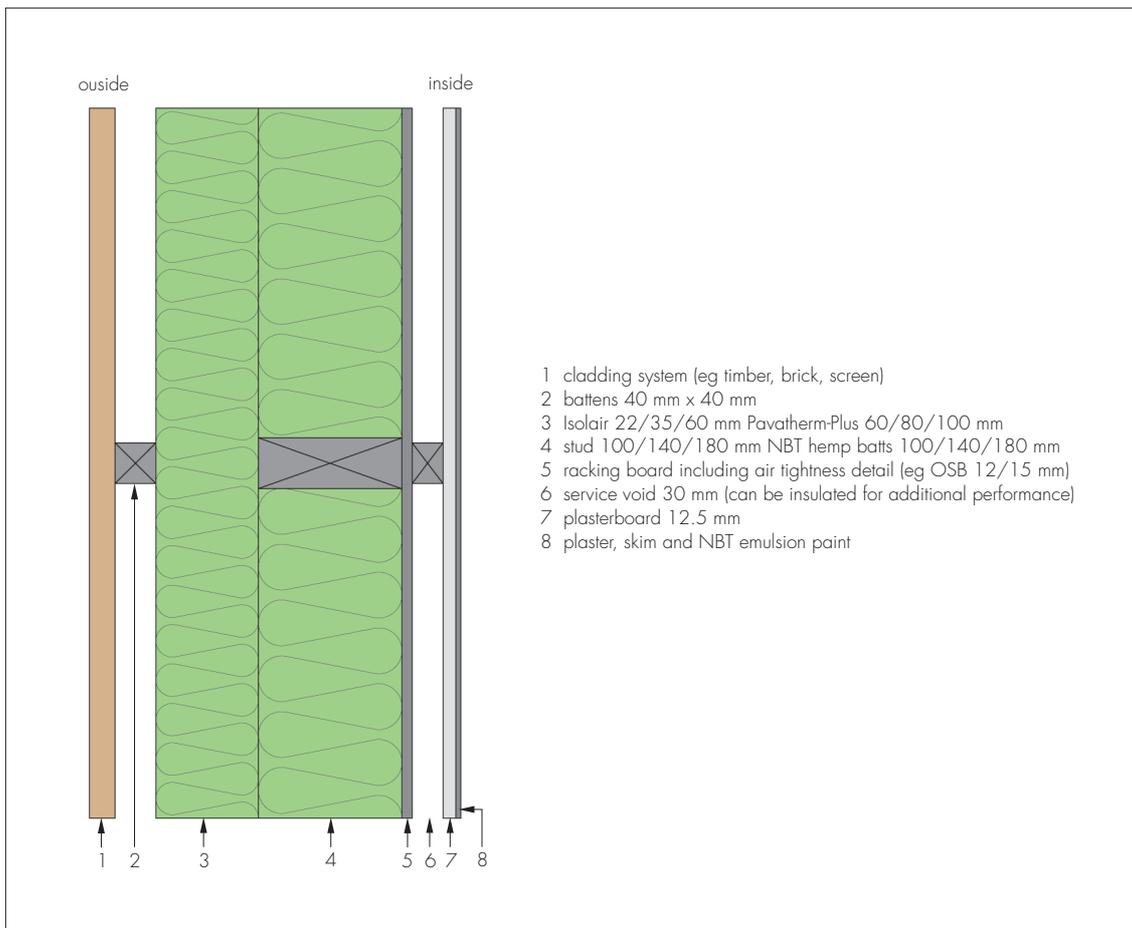
14.3 The boards can be cut using a fine-toothed saw, but care must be taken to prevent damage particularly to edges. Damaged boards should not be used unless the damage is minor and is repairable by filling with wood-fibre offcuts and sealed with Pavatape.

14.4 Cavity barriers must be provided as outlined in section 7.2.

14.5 It is important to ensure a tight fit between boards. Ensure a tongue-and-groove connection at all times.

14.6 Gaps and joints in the insulation envelope should be filled with wood-fibre offcuts and taped with Pavatape to ensure integrity.

Figure 1 Typical installation showing Isolair or Pavatherm-Plus insulation boards on a timber frame.



## 15 Procedure

### General

15.1 Fixings should only be used in accordance with the Certificate holder's recommendations and the fixing manufacturer's instructions.

### Fitting boards

15.2 The first row of boards are installed with tongue uppermost using one or two fixings per board (final fixing occurs through batten except with brick clad façades). Subsequent rows are fixed ensuring that the tongue is fully engaged and fixed as first row. Boards should be installed with a minimum 200 mm staggered bond. Joints do not have to coincide with frame stud due to the tongue-and-groove board edge, provided each board is supported by at least two studs.

15.3 All openings, corners and penetrations should be primed and taped with Pavatape to ensure the integrity of the layer.

15.4 Vertical expansion joints must be provided for wall elevations more than 18 m long. The expansion joint may be created by fitting the insulation to the frame and cutting a 5 mm wide groove through the board on the centre line of a stud. The groove may then be sealed using Pavatape to form a sealed air gap.

15.5 Final fixing of the boards must be through the battens.

### Cladding

15.6 Batten or rail system should only be applied after taping/sealing the board surface where cut.

15.7 Fixings should be at the centres recommended in the specific design for the site. Generally, this would be at 200 mm centres, for exposed areas or buildings over 18 m high. The Certificate holder or the fixing's manufacturer should provide specific advice.

## 16 Repair

Damaged boards must be replaced or repaired before the installation of weatherproofing cladding.

## 17 Tests

Tests were carried out on Isolair and Pavatherm-Plus Wood Fibre Insulation Boards in accordance with BS EN 13171 : 2001 to determine:

- behaviour under a thermal gradient
- compressive stress at 10% deformation
- bond strength between Isolair and Pavatherm-Plus layers.

## 18 Investigations

An examination was made of test data relating to:

- dimensional stability under specified temperature and humidity
- shear strength
- thermal conductivity
- flexural strength
- density
- dimensional stability at 70°C
- reaction to fire characteristics.
- cohesive strength
- compressive strength
- water absorption
- dimensional accuracy and flatness
- condensation risk
- water vapour permeance
- material class
- water penetration
- reaction to fire
- durability

## Additional Information

Natural Building Technologies Ltd has declared the designation of this product to be WF-EN13171-T3-CS(10/Y)70-TR2.5-WS1.0-MU5-AF100 Pavatherm-Plus and WF-EN13171-T4-CS(10/Y)100 TR30-WS1.0-MU5-AF100 for Isolair insulation board in accordance with BS EN 13171 : 2001, Section 6.

## Bibliography

- BS 5250 : 2002 *Code of practice for control of condensation in buildings*
- BS 5268-2 : 2002 *Structural use of timber — Code of practice for permissible stress design, materials and workmanship*
- BS 5268-5 : 1989 *Structural use of timber — Code of practice for the preservative treatment of structural timber*
- BS 5589 : 1989 *Code of practice for preservation of timber*
- BS 5628-1 : 2005 *Code of practice for the use of masonry — Structural use of unreinforced masonry*
- BS 5628-3 : 2005 *Code of practice for the use of masonry — Materials and components, design and workmanship*
- BS 5950-5 : 1998 *Structural use of steelwork in building — Code of practice for design of cold formed thin gauge sections*
- BS 6399-2 : 1997 *Loading for buildings — Code of practice for wind loads*
- BS 8000-3 : 2001 *Workmanship on building sites — Code of practice for masonry*
- BS 8110-1 : 1997 *Structural use of concrete — Code of practice for design and construction*
- BS 8110-2 : 1985 *Structural use of concrete — Code of practice for special circumstances*
- BS 8215 : 1991 *Code of practice for design and installation of damp-proof courses in masonry construction*
- BS EN 351-1 : 1996 *Durability of wood and wood-based products — Preservative-treated solid wood — Classification of preservative penetration and retention*
- BS EN 1991-1-4 : 2005 *Eurocode 1 : Actions on structures — General actions — Wind actions*
- BS EN 1996-2 : 2006 *Eurocode 6: Design of masonry structures — Design considerations selection of materials and of masonry.*
- BS EN 13171 : 2001 *Thermal insulation products for buildings — Factory made wood fibre (WF) products — Specification*
- BS EN ISO 6946 : 1997 *Building components and building elements — Thermal resistance and thermal transmittance — Calculation method*
- BS EN 13501-1 : 2007 *Fire classification of construction products and building elements. Classification using test data from reaction to fire tests*

## 19 Conditions

19.1 This Certificate:

- relates only to the product/system that is named and described on the front page
- is granted only to the company, firm or person named on the front page — no other company, firm or person may hold or claim any entitlement to this Certificate
- 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.

19.2 Publications and documents referred to in this Certificate are those that the BBA deems to be relevant at the date of issue or re-issue of this Certificate and include any: Act of Parliament; Statutory Instrument; Directive; Regulation; British, European or International Standard; Code of Practice; manufacturers' instructions; or any other publication or document similar or related to the aforementioned.

19.3 This Certificate will remain valid for an unlimited period provided that the product/system and the manufacture and/or fabrication including all related and relevant 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.

19.4 In granting this Certificate, the BBA is not responsible for:

- the presence or absence of any patent, intellectual property or similar rights subsisting in the product/system or any other product/system
- the right of the Certificate holder to manufacture, supply, install, maintain or market the product/system
- individual installations of the product/system, including the nature, design, methods and workmanship of or related to the installation
- the actual works in which the product/system is installed, used and maintained, including the nature, design, methods and workmanship of such works.

19.5 Any information relating to the manufacture, supply, installation, use and maintenance of this product/system which is contained or referred to in this Certificate is the minimum required to be met when the product/system is manufactured, supplied, installed, used and maintained. It does not purport in any way to restate the requirements of the Health & Safety at Work etc Act 1974, or of any other statutory, common law or other duty which may exist at the date 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. In granting this Certificate, the BBA does not accept responsibility to any person or body for any loss or damage, including personal injury, arising as a direct or indirect result of the manufacture, supply, installation, use and maintenance of this product/system.

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