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Agrément Certificate
13/5079
Product Sheet 3

EUROBRICK CLADDING SYSTEMS

I-CLAD INTERNAL CLADDING SYSTEM

This Agrément Certificate Product Sheet⁽¹⁾ relates to the I-Clad Internal Cladding System, comprising a gypsum plasterboard backerboard used with clay brick slip facings for use as non-structural, decorative cladding for internal walls of timber- and steel-frame construction above the damp-proof course in domestic and non-domestic buildings.

(1) Hereinafter referred to as 'Certificate'.

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

Strength and stability — the system has acceptable safety resistance to stresses and adequate resistance to impact damage (see section 6).

Behaviour in relation to fire — the use of the system is unrestricted by the national Building Regulations (see section 7).

Durability — the system has acceptable durability and can have a life equal to that of the structure onto which it is fixed (see section 10).



The BBA has awarded this Certificate to the company named above for the system described herein. This system 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: 26 September 2018

Paul Valentine
Technical Excellence Director

Claire Curtis-Thomas
Chief Executive

Originally certificated on 16 April 2014

Certificate amended on 13 January 2020 to include Regulation 7(2) for England and Wales and associated text.

The BBA is a UKAS accredited certification body – Number 113.

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

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.

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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Regulations

In the opinion of the BBA, the I-Clad Internal Cladding System, if installed, used and maintained in accordance with the provisions of this Certificate, can satisfy or contribute to satisfying the relevant requirements of the following Building Regulations (the presence of a UK map indicates that the subject is related to the Building Regulations in the region or regions of the UK depicted):



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

Requirement:	B2	Internal fire spread (linings)
Comment:		The system is unrestricted by this Requirement. See sections 7.1 to 7.3 of this Certificate.
Requirement:	B3(4)	Internal fire spread (structure)
Comment:		The system will contribute to satisfying this Requirement. See sections 7.1 to 7.3 of this Certificate.
Requirement:	C2	Resistance to moisture
Comment:		The system can contribute to satisfying this Requirement. See section 8 of this Certificate.
Regulation:	7(1)	Materials and workmanship
Comment:		The system is acceptable see section 10 and the <i>Installation</i> part of this Certificate.
Regulation:	7(2)	Materials and workmanship
Comment:		The system is unrestricted by this Regulation. See sections 7.1 to 7.3 of this Certificate.



The Building (Scotland) Regulations 2004 (as amended)

Regulation:	8(1)(2)	Durability, workmanship and fitness of materials
Comment:		The use of the system satisfies the requirements of this Regulation. See sections 9 and 10 and the <i>Installation</i> part of this Certificate.
Regulation:	9	Building standards applicable to construction
Standard:	2.4	Cavities
Standard:	2.5	Internal linings
Comment:		The system is unrestricted by these Standards with reference to clause 2.5.1 ⁽¹⁾⁽²⁾ . See sections 7.1 to 7.3 of this Certificate.
Standard:	3.15	Condensation
Comment:		The system can contribute to satisfying this Standard, with reference to clauses 3.15.2 ⁽¹⁾ , 3.15.4 ⁽¹⁾ and 3.15.5 ⁽¹⁾ . See section 8 of this Certificate.
Standard:	7.1(a)(b)	Statement of sustainability
Comment:		The system can contribute to meeting the relevant requirements of Regulation 9, Standards 1 to 6 and therefore will contribute to a construction level of sustainability as defined in this Standard.
Regulation:	12	Building standards applicable to conversions
Comment:		All comments given for the system under Regulation 9, 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).



The Building Regulations (Northern Ireland) 2012 (as amended)

Regulation:	23(a)(i)(iii)(b)	Fitness of materials and workmanship
Comment:		This system is acceptable. See section 10 and the <i>Installation</i> part of this Certificate.
Regulation:	29	Condensation
Comment:		The system can contribute to satisfying this Regulation. See section 8 of this Certificate.
Regulation:	34	Internal fire spread – Linings
Regulation:	35(4)	Internal fire spread – Structure
Comment:		The system is unrestricted by these Regulations. See sections 7.1 to 7.3 of this Certificate.

Construction (Design and Management) Regulations 2015

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.

See sections: 3 *Delivery and site handling* (3.3 and 3.5) and 13 *General* (13.4) of this Certificate.

Additional Information

NHBC Standards 2018

In the opinion of the BBA, the I-Clad External Cladding System, if installed, used and maintained in accordance with this Certificate, can satisfy or contribute to satisfying the relevant requirements in relation to *NHBC Standards, Part 6 Superstructure (excluding roofs)*, Chapter 6.9 *Curtain walling and cladding*.

Technical Specification

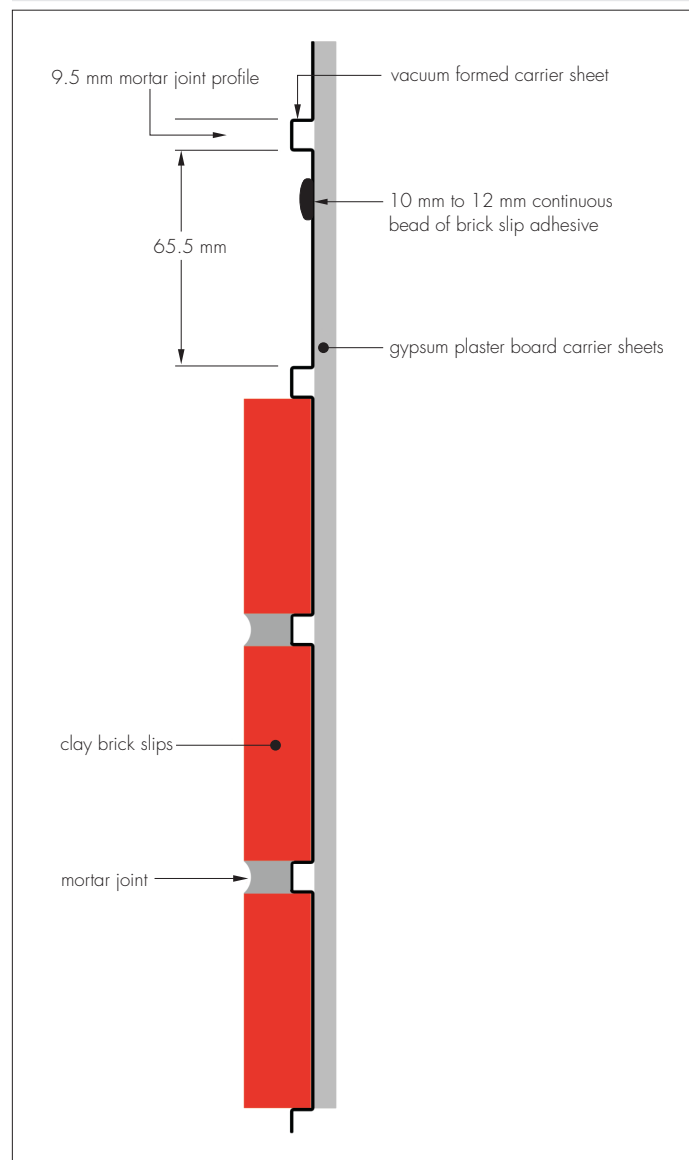
1 Description

1.1 The I-Clad Internal Cladding System (see Figures 1) comprises:

- backerboard panel — 1200 mm wide by 2400 mm high composite panels consisting a high-impact, high-gloss grey polystyrene (HIPS) profiled carrier sheet, bonded to a 12.5 mm Gyproc Wallboard (British Gypsum plasterboard) with a density of $640 \text{ kg}\cdot\text{m}^{-3}$. The brick slip carrier sheet provides a horizontal joint spacing track for brick slips with track dimensions of 65.5 mm centres with a 9 mm raised mortar joint profile as standard
- clay brick slip — fired clay brick slips of nominal size 215 mm in length, 65 mm in height and 15 mm thickness⁽¹⁾, available in a range of colours. The brick slips are either extruded (Britannia range) or cut (Classic range) from masonry units CE marked in accordance to EN 771-1 : 2011 as suitable for use in 'severe exposure' conditions (designation F2). In addition, L-shaped bricks 215 by 65 by 102 mm are available for external corners
- brick slip adhesive — 'Korapur 126' is a one part polyurethane construction adhesive specified in accordance with BS 6213 : 2000 and applied in a 10 to 12 mm diameter bead to the backerboard panel to attach the brick slips
- pointing grout/mortar — joints between brick slips are filled with proprietary cementitious mortar mix. Mortar mixes must be selected in accordance with BS EN 998-2 : 2010.

(1) Brick slips with different dimensions are available from the manufacturer but are outside the scope of this Certificate.

Figure 1 The I-Clad Internal Cladding System



1.2 Ancillary components for use with the system, but outside the scope of this Certificate, include:

- backerboard panel fasteners — coated steel fixings suitable for the substrate incorporating a 36 mm diameter stainless steel washer used to attach the panel to the substrate wall
- base angle — polymer-coated aluminium base angle, 60 by 24 by 1 mm, supplied in 2500 mm lengths for cutting onsite to provide a fixed datum for setting out panels

- urethane-based sealant — for use around openings and penetrations in accordance with BS EN ISO 11600 : 2003 and BS 6213 : 2000
- components forming movement joints.

2 Manufacture

2.1 The gypsum board component of the backerboard panel is manufactured to BS EN 520 : 2004.

2.2 The HIPS profiled carrier sheet component is vacuum formed.

2.3 Clay brick slips are either extruded- or cut-slips to specified dimensions.

2.4 As part of the assessment and ongoing surveillance of product quality, the BBA has:

- agreed with the Certificate holder/manufacturer the quality control procedures and product testing to be undertaken
- assessed and agreed the quality control operated over batches of incoming materials
- monitored the production process and verified that it is in accordance with the documented process
- evaluated the process for management of non-conformities
- checked that equipment has been properly tested and calibrated
- undertaken to carry out the above measures on a regular basis as part of a surveillance process to ensure that standards are maintained and that the product or system remains as certificated.

2.5 The management system of Eurobrick Systems Limited has been assessed and registered as meeting the requirements of BS EN ISO 9001 : 2015 and BS EN ISO 14001 : 2015 by CQS Limited (Certificates GB2003636 and EM200081 respectively).

3 Delivery and site handling

3.1 The backerboard panels are stacked on timber pallets. Each pack contains a label incorporating the manufacturer's name, product name, edge type, thickness, width, length, number of boards per pallet, pallet weight, recommended storage and handling method.

3.2 During transportation, an impermeable cover should be used to protect the panels.

3.3 The panels must be stored flat, level, clear off the ground on pallets out of direct sunlight and in dry conditions. Panels should ideally be stored indoors, however, should short-term storage outdoors be necessary, they must be covered with tarpaulin. Panels must not be exposed to volatile organic solvents. When moving manually, individual panels should be maintained in a vertical position.

3.4 Clay brick tiles are delivered to site in shrink wrapped bundles on pallets. They must be stored covered and on dry level ground.

3.5 Containers of adhesive, mortar, sealants and expanding foam should be stored in dry conditions and protected against frost and excessive heat. Adhesive and mortar must be used within the date indicated on the packaging or the supplier's guidelines.

Assessment and Technical Investigations

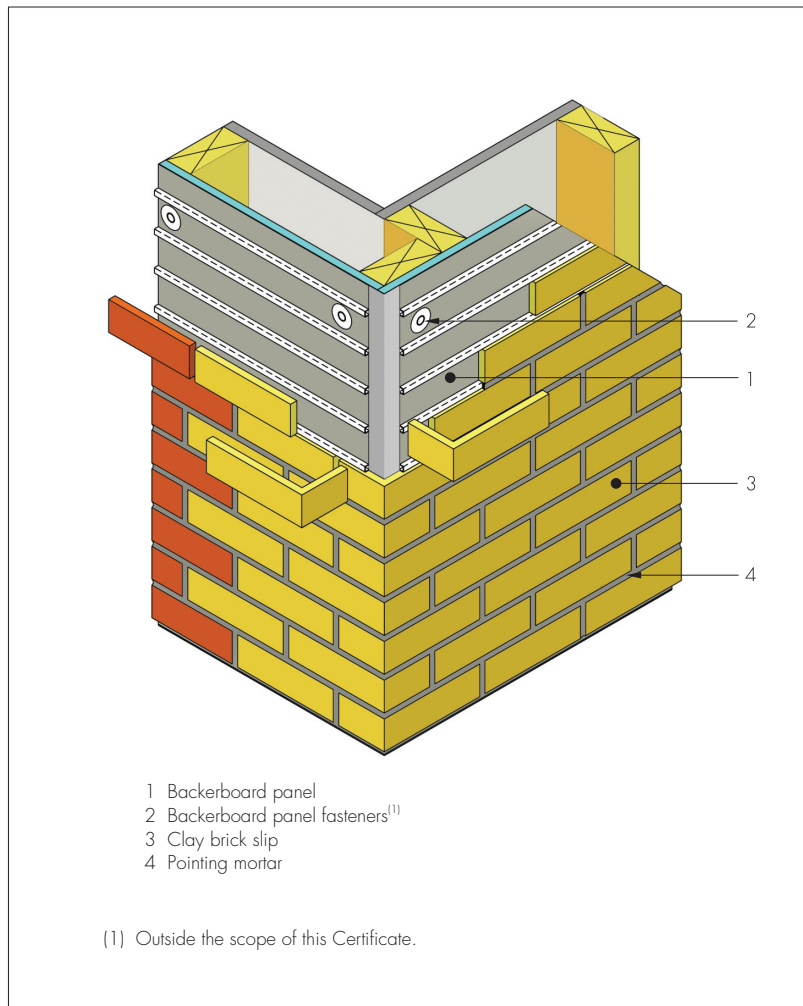
The following is a summary of the assessment and technical investigations carried out on the I-Clad Internal Cladding System.

Design Considerations

4 Use

4.1 The I-Clad Internal Cladding System is suitable for use as a non-structural decorative cladding finish for application on internal vertical walls of new or refurbished buildings of timber-frame or light gauge steel-frame construction (see Figure 2).

Figure 2 Typical I-Clad Internal Cladding System — timber-frame



4.2 The adequacy of the structural frame or substrate wall must be verified by a suitably qualified and experienced individual. The structural frame must be able to resist the full racking loads, no contribution from panels can be assumed.

4.3 The support frame to which the cladding is to be fixed should be structurally sound and constructed in accordance with the requirements of the relevant national Building Regulations and Standards:

- timber stud walls must be structurally sound, designed and constructed in accordance with BS EN 1995-1-1 : 2004 and preservative treated in accordance with BS EN 351-1 : 2007
- steel framework must be structurally sound, designed and constructed in accordance with BS EN 1993-1-1 : 2005 and BS EN 1993-1-3 : 2006.

4.4 The system does not make any contribution to the overall structural performance of the building and must not be used for the support of any temporary structure.

4.5 The fixing of wall-mounted fittings and similar items are outside the scope of this Certificate. However, suitable support fixings must pass through the cladding system into the substrate wall so as not to exert any loadings on the cladding. Care must be taken not to overtighten the fixings which could cause damage. Guidance must be sought from the Certificate holder.

4.6 The system must only be used in locations where the surface temperature will not exceed 49°C.

4.7 The acoustic performance of a wall construction is outside the scope of this Certificate and has not been assessed.

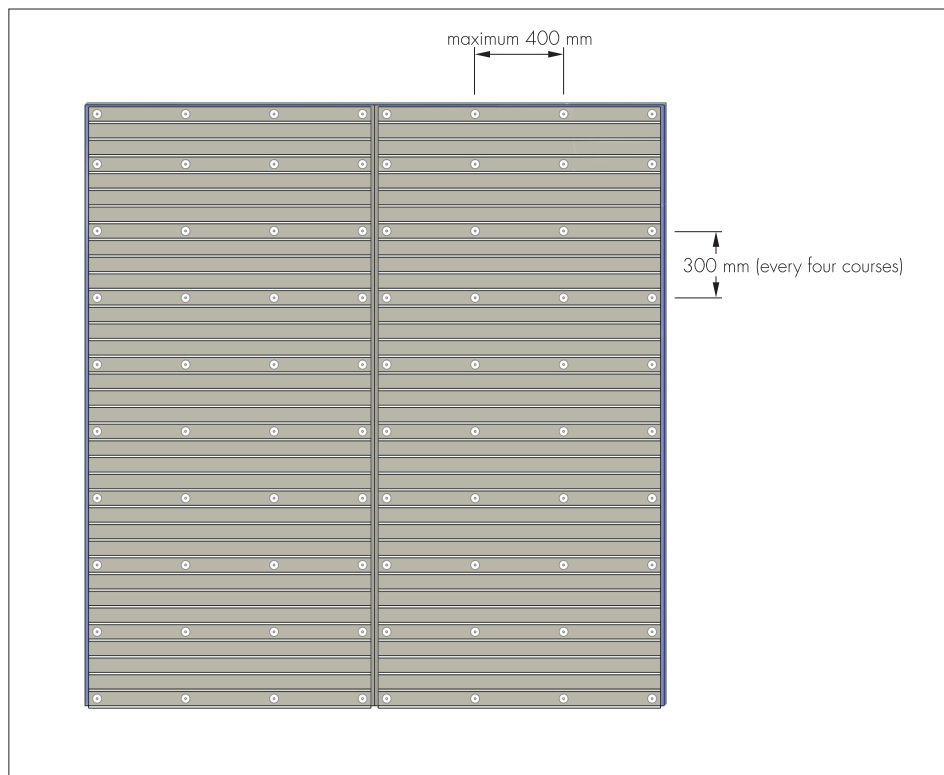
5 Practicability of installation

The system should only be installed by installers who have been trained and approved by the Certificate holder.

6 Strength and stability

6.1 The structural adequacy of the fixings used to attach the panels to the substrate wall, including their pull-out strength, will depend on the type and condition of the individual substrate wall and must therefore be designed and selected on a project specific basis. The maximum spacing between these fixings should not exceed 400 mm horizontally and 300 mm vertically, as shown in Figure 3.

Figure 3 Typical fixing layout



6.2 A suitably qualified and experienced individual must ensure that:

- the substrate wall has adequate strength to resist additional loads that may be applied as a result of installing the system
- the system to substrate wall fixings have adequate pull-out capacity.

Impact resistance

6.3 The system has adequate resistance to normal impacts likely to occur in service.

7 Behaviour in relation to fire



7.1 The clay brick slip is classified as non-combustible under the commission directive 89/106/EEC.

7.2 The gypsum plasterboard has a reaction to fire classification of A2-s1, d0 in accordance with BS EN 13501-1 : 2007.

7.3 The use of the system is not subject to any restriction on building height or proximity to boundaries.

7.4 Designers should refer to the national Building Regulations and guidance for detailed 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 wall construction, for example, thermal insulation.

8 Condensation risk



8.1 The system can contribute to minimising condensation on internal wall surfaces.

8.2 To minimise the risk of interstitial condensation, walls should be designed and constructed in accordance with BS 5250 : 2011.

9 Maintenance



9.1 Regular maintenance inspections should be carried out to ensure that the condition of sealants is satisfactory. Sealant should be reapplied where necessary. Damaged brick slips should be replaced in accordance with the Certificate holder's installation instructions.

9.2 The brick finish may become soiled over time. For normal soiling, the surface may be cleaned using a hot water/household detergent mix, applied with a suitable cleaning pad or sponge. For more difficult chemical soiling, the advice of the Certificate holder should be sought.

10 Durability



Provided the system is fixed to a suitable, stable and durable background, and necessary maintenance is carried out (see section 9), the I-Clad Internal Cladding System can be expected to have a service life equal to that of the structure onto which it is fixed.

11 Reuse and recyclability

The system consists of brick and mortar which can be recycled.

Installation

12 Approved installers

Application of the system, within the context of this Certificate, is carried out by installers recommended or recognised by the Certificate holder. Such an installer is a company which:

- employs operatives who have been trained and approved by the Certificate holder to install the system
- has undertaken to comply with the Certificate holder's application procedure, containing the requirement for each application team to include at least one member trained by the Certificate holder
- is subject to supervision by the Certificate holder. This may include unannounced site inspections.

13 General

13.1 The I-Clad Internal Cladding System must be installed by approved installers, in accordance with the Certificate holder's recommendations, the requirements of this Certificate and the specification laid down by a suitably qualified and experienced individual.

13.2 The frame to which the panels are fixed must be structurally sound and constructed in accordance with the requirements of the relevant national Building Regulations and Standards (see sections 4.3).

13.3 The system may only be installed where other routes for moisture penetration have been dealt with separately and where dampness, other than that caused solely by condensation, is not evident on the inner surface of the wall.

13.4 The panels can be handled on site and can be cut or trimmed using a sharp knife or fine-toothed saw. Reasonable precautions must be taken to ensure panels are not damaged during and subsequent to installation. Protective glasses and masks must be worn when cutting the panels.

14 Procedure

Backerboard

14.1 Before installation commences, the substrate to receive the backerboard panels must be flat and stable. Typically, installation starts from the outside corner working along the wall. A base angle is set at the appropriate height and fastened to the wall to provide a level datum for installing the panels.

14.2 The panel is fixed to the substrate with mechanical fixings. Care must be taken to ensure the fixing holes are drilled perpendicular to the surface of the Gyproc Wallboard component of the panel.

14.3 When installing onto timber-frame substrates, horizontal movement joints in accordance with BS EN 13914-1 : 2005 must be provided at every floor to accommodate vertical shrinkage in the timber-frame and to follow movement joints in the substructure. With steel-frame substrates, the details for deflection at floor level and movement joints in the substructure set out by the suitably qualified and experienced individual (eg structural engineer) should be applied.

14.4 Vertical movement joints must be provided at a maximum of 7 metre intervals in accordance with the Certificate holder's recommendations. The actual spacing and position of the joints should coincide with movement joints in the structure and allow for the same degree of movement (see Figure 4).

Brick slips

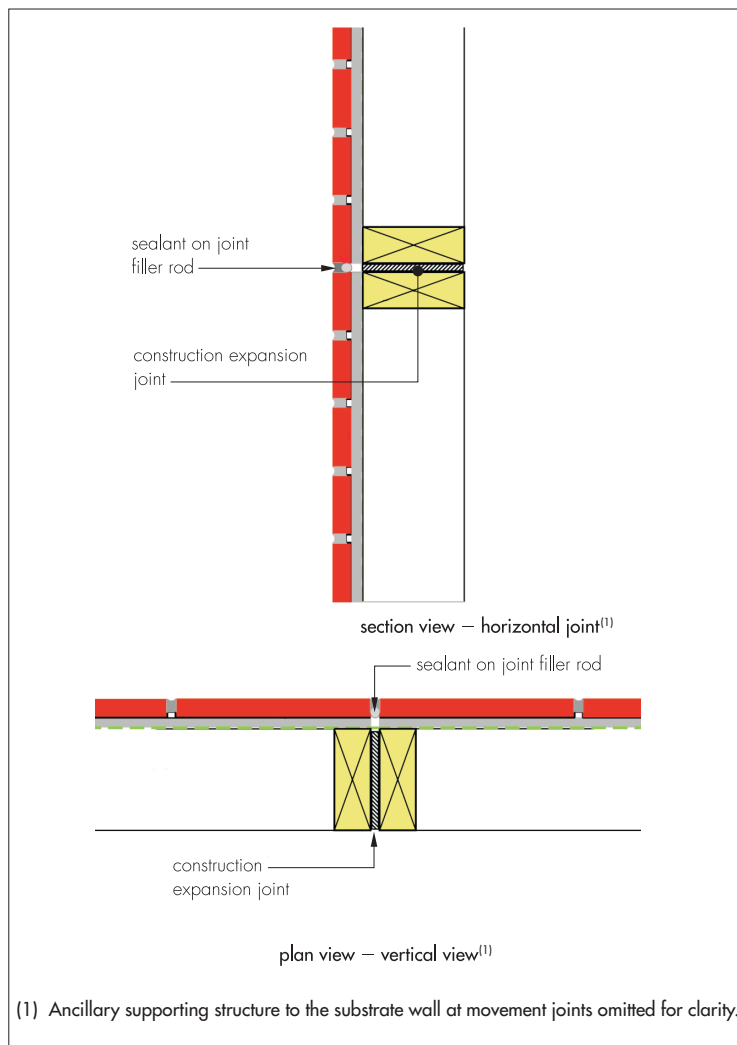
14.5 The brick slip adhesive is applied in a 10 to 12 mm diameter continuous bead between the ribs of the carrier sheet profile near the top edge. Care must be taken to ensure an appropriate amount of adhesive is used to hold the brick slips to the backerboard panel. Where movement joints are present, a gap in the adhesive bead application must be left.

14.6 The clay brick slips must be clean and dust free, and are placed on horizontal bed joint ribs of the backerboard carrier sheet (see Figure 1). The ribs are at 75 mm centres⁽¹⁾ and the brick slips sit directly on top of the flat face and must be pressed firmly against the carrier. Alignment should be checked as work proceeds.

(1) For standard brick slip dimensions, listed in section 1.1. Alternative dimensions of brick slips are available from the manufacturer but are outside the scope of this Certificate.

14.7 Joints are filled with the pointing grout/mortar. Pointing must only take place at temperatures between 2 and 30°C. When pointing is completed, the mortar joints are tooled to the type of joint recommended by the Certificate holder and excess mortar removed with a soft brush.

Figure 4 Typical movement joints



Technical Investigations

15 Investigations

An investigation was made of data relating to:

- strength and stability
- reaction to fire
- resistance to weathering
- freeze/thaw resistance
- thermal properties
- resistance to condensation
- durability.

Bibliography

BS 5250 : 2011 + A1 : 2016 *Code of practice for control of condensation in buildings*

BS 6213 : 2000 + A1 : 2010 *Selection of construction sealants — Guide*

BS EN 351-1 : 2007 *Durability of wood and wood-based products — Preservative-treated solid wood — Classification of preservative penetration and retention*

BS EN 520 : 2004 + A1 : 2009 *Gypsum plasterboards — Definitions, requirements and test methods*

BS EN 998-2 : 2016 *Specification for mortar for masonry — Masonry mortar*

BS EN 1993-1-1 : 2005 + A1 : 2014 *Eurocode 3 — Design of steel structures — General rules and rules for buildings*

BS EN 1993-1-3 : 2006 *Eurocode 3 — Design of steel structures — General rules — Supplementary rules for cold-formed members and sheeting*

BS EN 1995-1-1 : 2004 + A1 : 2008 *Eurocode 5 — Design of timber structures — General — Common rules and rules for buildings*

BS EN 13501-1 : 2007 + A1 : 2009 *Fire classification of construction products and building elements — Classification using test data from reaction to fire tests*

BS EN 13914-1 : 2005 *Design, preparation and application of external rendering and internal plastering — External rendering*

BS EN ISO 9001 : 2008 *Quality management systems — Requirements*

BS EN ISO 11600 : 2003 + A1 : 2011 *Building construction — Jointing products — Classification and requirement for sealants*

BS EN ISO 14001 : 2015 *Environmental Management systems — Requirements*

EN 771-1 : 2011 *Specification for masonry units — Clay masonry units*

Conditions of Certification

16 Conditions

16.1 This Certificate:

- relates only to the product/system 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.

16.2 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.

16.3 This Certificate will remain valid for an unlimited period provided that the product/system 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.

16.4 The BBA has used due skill, care and diligence in preparing this Certificate, but no warranty is provided.

16.5 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/system or any other product/system
- the right of the Certificate holder to manufacture, supply, install, maintain or market the product/system
- actual installations of the product/system, including their nature, design, methods, performance, workmanship and maintenance
- any works and constructions in which the product/system is installed, including their nature, design, methods, performance, workmanship and maintenance
- any loss or damage, including personal injury, howsoever caused by the product/system, including its manufacture, supply, installation, use, maintenance and removal
- any claims by the manufacturer relating to CE marking.

16.6 Any information relating to the manufacture, supply, installation, use, maintenance and removal 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, 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.