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**Agrément Certificate**

**93/2861**

Product Sheet 7 Issue 2

### ALREFLEX RANGE OF CAVITY WALL INSULATION AND CAVITY RAIN BARRIERS

#### ALREFLEX PLATINUM ON STEEL FRAMED WALLS

This Agrément Certificate Product Sheet<sup>(1)</sup> relates to Alreflex Platinum on Steel Framed Walls, comprising a single-layer polyethylene bubble sheet faced on one side with aluminium foil, attached to a rigid expanded polystyrene (EPS) board, for use as insulated sheathing on new conventional steel-frame walls with a masonry outer leaf, in domestic and non-domestic buildings, with height restrictions.

(1) Hereinafter referred to as 'Certificate'.

#### The assessment includes

##### Product factors:

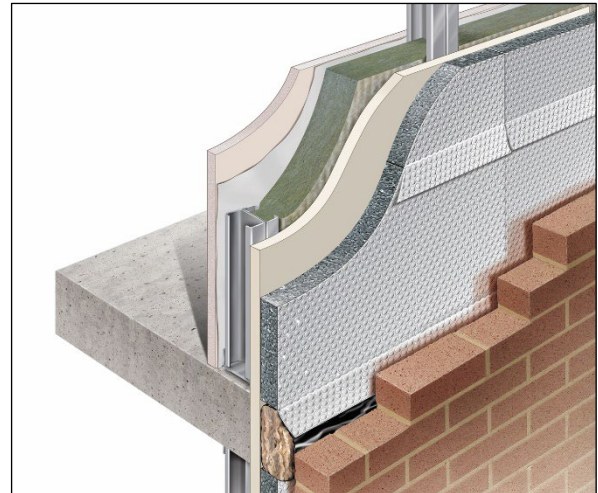
- compliance with Building Regulations
- compliance with additional regulatory or non-regulatory information where applicable
- evaluation against technical specifications
- assessment criteria and technical investigations
- uses and design considerations

##### Process factors:

- compliance with Scheme requirements
- installation, delivery, handling and storage
- production and quality controls
- maintenance and repair

##### Ongoing contractual Scheme elements†:

- regular assessment of production
- formal 3-yearly review



#### KEY FACTORS ASSESSED

- Section 1. Mechanical resistance and stability
- Section 2. Safety in case of fire
- Section 3. Hygiene, health and the environment
- Section 4. Safety and accessibility in use
- Section 5. Protection against noise
- Section 6. Energy economy and heat retention
- Section 7. Sustainable use of natural resources
- Section 8. Durability

The BBA has awarded this Certificate to the company named above for the product described herein. This product 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: 7 May 2025  
Originally certified on 14 December 2016

Hardy Giesler  
Chief Executive Officer

*This BBA Agrément Certificate is issued under the BBA's Inspection Body accreditation to ISO/IEC 17020. Sections marked with † are not issued under accreditation.*

*The BBA is a UKAS accredited Inspection Body (No. 4345), Certification Body (No. 0113) and Testing Laboratory (No. 0357).*

*Readers MUST check that this is the latest issue of this Agrément Certificate by either referring to the BBA website or contacting the BBA directly.*

*The Certificate should be read in full as it may be misleading to read clauses in isolation.*

*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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## SUMMARY OF ASSESSMENT AND COMPLIANCE

This section provides a summary of the assessment conclusions; readers should refer to the later sections of this Certificate for information about the assessments carried out.

### Compliance with Regulations

Having assessed the key factors, the opinion of the BBA is that Alreflex Platinum on Steel Framed Walls, if installed, used and maintained in accordance with this Certificate, can satisfy or contribute to satisfying the relevant requirements of the following Building Regulations:



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

<b>Requirement:</b> B3(4)	<b>Internal fire spread (structure)</b>
Comment:	The product can contribute to satisfying this Requirement. See section 2 of this Certificate.
<b>Requirement:</b> B4(1)	<b>External fire spread (structure)</b>
Comment:	The product is restricted by this Requirement. See section 2 of this Certificate.
<b>Requirement:</b> C2(a)	<b>Resistance to moisture</b>
Comment:	The product can contribute to satisfying this Requirement. See section 3 of this Certificate.
<b>Requirement:</b> C2(c)	<b>Resistance to moisture</b>
Comment:	The product can contribute to satisfying this Requirement. See section 3 of this Certificate.
<b>Requirement:</b> L1(a)(i)	<b>Conservation of fuel and power</b>
Comment:	The product can contribute to satisfying this Requirement. See section 6 of this Certificate.
<b>Regulation:</b> 7(1)	<b>Materials and workmanship</b>
Comment:	The product is acceptable. See sections 8 and 9 of this Certificate.
<b>Regulation:</b> 7(2)	<b>Materials and workmanship</b>
Comment:	The product is restricted by this Regulation. See section 2 of this Certificate.
<b>Regulation:</b> 25B	<b>Nearly zero-energy requirements for new buildings</b>
<b>Regulation:</b> 26	<b>CO<sub>2</sub> emission rates for new buildings</b>
<b>Regulation:</b> 26A	<b>Fabric energy efficiency rates (applicable to England only)</b>
<b>Regulation:</b> 26A	<b>Primary energy efficiency rates for new buildings (applicable to Wales only)</b>
<b>Regulation:</b> 26B	<b>Fabric performance values for new dwellings (applicable to Wales only)</b>
<b>Regulation:</b> 26C	<b>Target primary energy rates for new buildings (applicable to England only)</b>
<b>Regulation:</b> 26C	<b>Energy efficiency rating (applicable to Wales only)</b>
Comment:	The product can contribute to satisfying these Regulations. See section 6 of this Certificate.



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

<b>Regulation:</b> 8(1)	<b>Fitness and durability of materials and workmanship</b>
Comment:	The product is acceptable. See sections 8 and 9 of this Certificate.
<b>Regulation:</b> 8(3)	<b>Fitness and durability of materials and workmanship</b>
Comment:	The product is restricted by this Regulation. See section 2 of this Certificate.

<b>Regulation:</b>	<b>9</b>	<b>Building standards – construction</b>
Standard:	2.4	Cavities
Comment:		The product can contribute to satisfying this Standard, with reference to clauses 2.4.2 <sup>(1)(2)</sup> and 2.4.4 <sup>(1)(2)</sup> . See section 2 of this Certificate.
Standard:	2.6	Spread to neighbouring buildings
Comment:		The product is restricted by this Standard, with reference to clauses 2.6.5 <sup>(1)</sup> and 2.6.6 <sup>(2)</sup> . See section 2 of this Certificate.
Standard:	3.4	Moisture from the ground
Comment:		The product can contribute to satisfying this Standard, with reference to clauses 3.4.1 <sup>(1)(2)</sup> and 3.4.5 <sup>(1)(2)</sup> . See section 3 of this Certificate.
Standard:	3.15	Condensation
Comment:		The product can contribute to satisfying this Standard, with reference to clauses 3.15.1 <sup>(1)(2)</sup> , 3.15.4 <sup>(1)(2)</sup> and 3.15.5 <sup>(1)(2)</sup> . See section 3 of this Certificate.
Standard:	6.1(b)(c)	Energy demand
Comment:		The product can contribute to satisfying this Standard with reference to clauses 6.1.1 <sup>(1)</sup> and 6.1.2 <sup>(2)</sup> . See section 6 of this Certificate.
Standard:	6.2	Building insulation envelope
Comment:		The product can contribute to satisfying this Standard with reference to clauses 6.2.1 <sup>(1)(2)</sup> , 6.2.3 <sup>(1)</sup> , 6.2.4 <sup>(2)</sup> , 6.2.6 <sup>(1)</sup> , 6.2.7 <sup>(2)</sup> , 6.2.8 <sup>(1)</sup> , 6.2.9 <sup>(2)</sup> , 6.2.10 <sup>(1)</sup> , 6.2.11 <sup>(2)</sup> and 6.2.12 <sup>(1)</sup> . See section 6 of this Certificate.
Standard:	7.1(a)(b)	Statement of sustainability
Comment:		The product can contribute to satisfying the relevant requirements of Regulation 9, Standards 1 to 6, and therefore will contribute to a construction meeting at least a bronze level of sustainability as defined in this Standard. In addition, the product can contribute to a construction meeting a higher level of sustainability as defined in this Standard, with reference to clauses 7.1.4 <sup>(1)</sup> , 7.1.6 <sup>(1)(2)</sup> , 7.1.7 <sup>(1)</sup> , 7.1.9 <sup>(2)</sup> and 7.1.10 <sup>(2)</sup> . See section 6 of this Certificate.
<b>Regulation:</b>	<b>12</b>	<b>Building standards – conversion</b>
Comment:		Comments made in relation to this product under Regulation 9, Standards 1 to 6, also apply to this Regulation, with reference to clause 0.12.1 <sup>(1)(2)</sup> and Schedule 6 <sup>(1)(2)</sup> .
		(1) Technical Handbook (Domestic). (2) Technical Handbook (Non-Domestic).



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

<b>Regulation:</b>	<b>23(1)(a)(i)(iii)</b>	<b>Fitness of materials and workmanship</b>
Comment:	<b>(b)(i)(ii)</b>	The product is acceptable. See section 8 of this Certificate.
<b>Regulation:</b>	<b>23(2)</b>	<b>Fitness of materials and workmanship</b>
Comment:		The product is restricted by this Regulation. See section 2 of this Certificate.
<b>Regulation:</b>	<b>28(a)</b>	<b>Resistance to moisture and weather</b>
Comment:		The product can contribute to satisfying this Regulation. See section 3 of this Certificate.
<b>Regulation:</b>	<b>29</b>	<b>Condensation</b>
Comment:		The product can contribute to satisfying this Regulation. See section 3 of this Certificate.
<b>Regulation:</b>	<b>35(4)</b>	<b>Internal fire spread – structure</b>
Comment:		The product may be restricted by this Regulation. See section 2 of this Certificate.

<b>Regulation:</b>	<b>36(a)</b>	<b>External fire spread</b>
Comment:		The product is restricted by this Regulation. See section 2 of this Certificate.
<b>Regulation:</b>	<b>39(a)(i)</b>	<b>Conservation measures</b>
<b>Regulation:</b>	<b>40(2)</b>	<b>Target carbon dioxide emission rate</b>
<b>Regulation:</b>	<b>43B</b>	<b>Nearly zero-energy requirements for new buildings</b>
Comment:		The product can contribute to satisfying these Regulations. See section 6 of this Certificate.

## Additional Information

### NHBC Standards 2025

In the opinion of the BBA, Alreflex Platinum on Steel Framed Walls, if installed, used and maintained in accordance with this Certificate, can satisfy or contribute to satisfying the relevant requirements in relation to *NHBC Standards*, Chapters 6.1 *External masonry walls* and 6.10 *Light steel framing*.

## Fulfilment of Requirements

The BBA has judged Alreflex Platinum on Steel Framed Walls to be satisfactory for use as described in this Certificate. The product has been assessed for use as insulated sheathing on new conventional steel-frame walls with a masonry outer leaf, in domestic and non-domestic buildings, with height restrictions. The product may also act as a rain barrier.

## ASSESSMENT

### Product description and intended use

The Certificate holder provided the following description for the product under assessment. Alreflex Platinum on Steel Framed Walls consists of a polyethylene bubble sheet faced on one side with aluminium foil attached to a rigid EPS insulation board.

The product has the nominal characteristics given in Table 1.

*Table 1 Nominal characteristics*

Characteristic (unit)	Value
Length (mm)	1200
Width (mm)	450
Thickness of the bubble film (mm)	3
Thickness of the rigid board (mm)	25 – 300 mm, in 5 mm increments
Edge detail	Square with bubble wrap/foil overlap

### Ancillary Items

The Certificate holder recommends the following ancillary item for use with the product, but these materials have not been assessed by the BBA and are outside the scope of this Certificate:

- wall ties with insulation-retaining clips/fixings to BS EN 845-1 : 2013
- foil tape
- sheathing and lining board
- breather membranes
- air and vapour control layer (AVCL).

## Product assessment – key factors

The product was assessed for the following key factors, and the outcome of the assessments is shown below. Conclusions relating to the Building Regulations apply to the whole of the UK unless otherwise stated.

### 1 Mechanical resistance and stability

Not applicable.

### 2 Safety in case of fire

Data were assessed for the following characteristics.

#### 2.1 Reaction to fire

2.1.1 The Certificate holder has not declared a reaction to fire classification to BS EN 13501-1 : 2018 for the product.

2.1.2 On the basis of data assessed, the product will be restricted in use under the documents supporting the national Building Regulations in some cases. The product must be contained by a fire-resistant lining board manufactured in accordance with BS EN 520 : 2004, with joints fully sealed and supported by timber studs or battens.

2.1.3 In England, the product must not be used on residential buildings with a storey 11 m or more in height or on other buildings with a storey more than 18m in height.

2.1.4 In Wales and Northern Ireland, the product must not be used on buildings with a storey 18 m or more in height.

2.1.5 In Scotland, the product must not be used on buildings that have a storey 11 m or more in height, or within 1 m of a relevant boundary.

2.1.6 Designers must refer to the relevant national Building Regulations and guidance for detailed conditions of use, particularly in respect of requirements for substrate fire performance, cavity closers and barriers, fire stopping of service penetrations and combustibility limitations for other materials and components used in the overall wall construction.

### 3 Hygiene, health and the environment

Data were assessed for the following characteristics.

#### 3.1 Effectiveness against rising damp

The product was tested for long term water absorption by total immersion and the result is given in Table 2.

*Table 2 Long term water absorption by total immersion*

Product assessed	Assessment method	Requirement	Result
Alreflex Platinum on Steel Framed Walls	BS EN 12087 : 2013	≤ 3.5 % by volume	Pass

#### 3.2 Water vapour permeability

The water vapour resistance and resistivity of the product are given in Table 3.

*Table 3 Water vapour resistance/resistivity*

Material	Assessment method	Requirement	Result
EPS insulation	BS EN 13163 : 2012	Declared value	100 – 200 MN·s·g <sup>-1</sup> ·m <sup>-1</sup>
Bubble film	BS EN ISO 10456 : 2007		150 MN·s·g <sup>-1</sup>

## 4 Safety and accessibility in use

Not applicable.

## 5 Protection against noise

Not applicable.

## 6 Energy economy and heat retention

Data were assessed for the following characteristics.

### 6.1 Thermal conductivity

The product was tested for thermal conductivity and thermal resistance, and the results are given in Table 4.

*Table 4 Thermal conductivity and emissivity*

Product assessed	Assessment method	Requirement	Result
EPS insulation	Thermal conductivity to BS EN 13163 : 2012	Declared value ( $\lambda_D$ )	0.030 W·m <sup>-1</sup> ·K <sup>-1</sup>
Bubble film	Thermal resistance to BS EN 12667 : 2001	Declared value	0.10 m <sup>2</sup> ·K·W <sup>-1</sup>

### 6.2 Thermal Performance

The product was tested for emissivity and the result is given in Table 5.

*Table 5 Outer surface emissivity of the product*

Product assessed	Assessment method	Requirement	Result
Bubble film	BS EN ISO 22097 : 2023	Declared value	0.05

### 6.3 Conservation of fuel and power

6.3.1 The U value of a completed wall will depend on the insulation thickness, its structure and its internal finish. Example U values are given in Table 6.

*Table 6 Example U values — steel frame<sup>(1)(2)</sup>*

U value (W·m <sup>-2</sup> ·K <sup>-1</sup> )	Alreflex Platinum EPS insulation thickness (fully filled 90 mm steel frame) (mm) <sup>(3)</sup>
0.13	145
0.15	115
0.17	95
0.18	85
0.21	60
0.26	35
0.28	25
0.30	25

(1) Construction, external to internal: 102.5 mm brick ( $\lambda = 0.77$  W·m<sup>-1</sup>·K<sup>-1</sup>), 50 mm low e cavity ( $R = 0.665$  m<sup>2</sup>·K·W<sup>-1</sup>), Alreflex Platinum on Steel Framed Walls, breather membrane, 9 mm OSB sheathing board ( $\lambda = 0.13$  W·m<sup>-1</sup>·K<sup>-1</sup>), 90 mm light steel frame ( $\lambda = 50$  W·m<sup>-1</sup>·K<sup>-1</sup>, 0.2% fraction), AVCL, and 15 mm plasterboard ( $\lambda = 0.25$  W·m<sup>-1</sup>·K<sup>-1</sup>).

(2) Calculations based upon 4.4 stainless steel cavity wall ties per m<sup>2</sup> (6.6 mm<sup>2</sup> cross-sectional area,  $\lambda = 17$  W·m<sup>-1</sup>·K<sup>-1</sup>).

(3) Alreflex Platinum on Steel Framed Walls installed against the sheathing board with 90 mm of insulation in the steel frame ( $\lambda_D = 0.038$  W·m<sup>-1</sup>·K<sup>-1</sup>).

6.3.2 The product can contribute towards a construction satisfying the national Building Regulations in respect of energy economy and heat retention.

## 7 Sustainable use of natural resources

Not applicable.

## 8 Durability

8.1 The potential mechanisms for degradation and the known performance characteristics of the materials in the product were assessed.

8.2 Specific test data were assessed as given in Table 7.

Table 7 Durability

Product assessed	Assessment method	Requirement	Result
Alreflex Platinum on Steel Framed Walls	Dimensional stability to BS EN 1603 : 2013 (23°C and 50% RH for 24 hours)	Value achieved	Length and width ≤ 0.2 % change

### 8.3 Service life

Under normal service conditions the product will have a life equivalent to the building in which it is incorporated, provided it is designed, installed and maintained in accordance with this Certificate and the Certificate holder's instructions.

## PROCESS ASSESSMENT

Information provided by the Certificate holder was assessed for the following factors:

## 9 Design, installation, workmanship and maintenance

### 9.1 Design

9.1.1 The design process was assessed by the BBA, and the following requirements apply in order to satisfy the performance assessed in this Certificate.

9.1.2 External masonry cavity walls must be designed and constructed in accordance with the relevant recommendations of:

- BS 5250 : 2021
- BS 8000-3 : 2020
- BS EN 351-1 : 2023
- BS EN 845-1 : 2013
- BS EN 1993-1-1 : 2005 and its UK National Annex
- BS EN 1993-1-2 : 2005 and its UK National Annex
- BS EN 1993-1-3 : 2006 and its UK National Annex
- BS EN 1995-1-1 : 2004 and its UK National Annex
- BS EN 1996-1-1 : 2005 and its UK National Annex
- BS EN 1996-1-2 : 2005 and its UK National Annex
- BS EN 1996-2 : 2006 and its UK National Annex
- BS EN 1996-3 : 2006 and its UK National Annex.

9.1.3 As with other forms of cavity wall insulation, where buildings need to comply with the *NHBC Standards*, specifiers must observe the requirements of that document.

9.1.4 Steel frame wall ties with insulation-retaining fixings and, if required, any additional ties to BS EN 845-1 : 2013 must be used for structural stability in accordance with BS EN 1996-1-1 : 2005, BS EN 1996-2 : 2006 and BS EN 1996-3 : 2006, and their UK National Annexes.

9.1.5 Care must be taken in the overall design and construction of walls incorporating the product to ensure the provision of appropriate:

- cavity trays and damp-proof courses (DPC)
- cavity barriers
- resistance to the ingress of precipitation, moisture and dangerous gases from the ground
- resistance to sound transmission when flanking separating walls and floors.

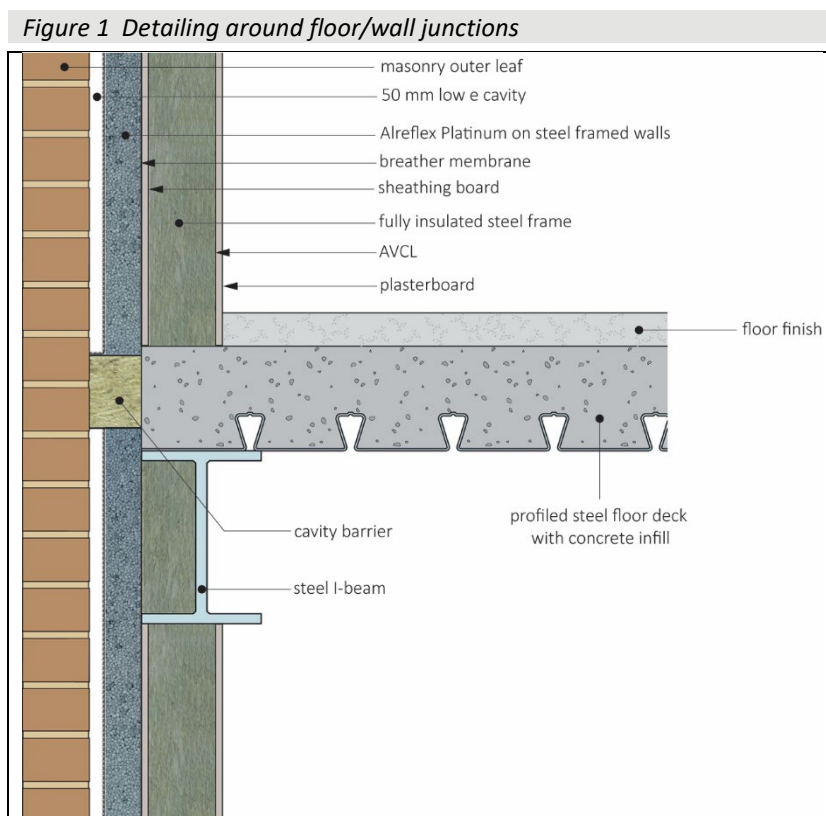
9.1.6 It is essential that external walls are designed and constructed to incorporate the precautions in this Certificate to prevent moisture penetration.

9.1.7 Window and door opening reveals should be constructed incorporating a cavity barrier/closer/DPC, as required.

9.1.8 The detailed provisions given in the documents supporting the national Building Regulations for when the system is installed in close proximity to certain flue pipes and/or heat-producing appliances must be followed.

9.1.9 Calculations of the thermal transmittance (U value) of a wall must be carried out in accordance with BS EN ISO 6946 : 2017, BRE Report BR 443 : 2019 and BRE Digest 465.

9.1.10 Care must be taken in the overall design and construction of junctions with other elements and openings to minimise thermal bridges and air infiltration (see Figure 1). Detailed guidance can be found in the documents supporting the national Building Regulations.



### Interstitial condensation

9.1.11 Walls will adequately limit the risk of interstitial condensation when they are designed and constructed in accordance with BS 5250 : 2021.

9.1.12 If the product is to be used in the external wall of rooms expected to have high humidity, care must be taken to provide adequate permanent ventilation to avoid possible problems from the formation of interstitial condensation.

### Surface condensation

9.1.13 In England and Wales, walls will adequately limit the risk of surface condensation when the thermal transmittance (U value) does not exceed  $0.7 \text{ W}\cdot\text{m}^{-2}\cdot\text{K}^{-1}$  at any point, and the junctions with other elements are designed in accordance with the guidance referred to in section 9.1.11 of this Certificate.

9.1.14 For buildings in Scotland, wall constructions will be acceptable when the thermal transmittance (U value) does not exceed  $1.2 \text{ W}\cdot\text{m}^{-2}\cdot\text{K}^{-1}$  at any point, and the junctions with other elements are designed in accordance with the guidance referred to in BS 5250 : 2021. Further guidance may be obtained from BRE Report BR 262 : 2002 and section 9.1.11 of this Certificate.

### Buildings up to and including 18 metres high (see also section 2 of this Certificate)

9.1.16 The residual cavity width to be maintained during construction is 50 mm. This may reduce to 25 mm in isolated areas due to individual construction features [a minimum of 50 mm residual cavity width is required by the NHBC<sup>(1)</sup>]. This may be achieved by designing a cavity width which considers the dimensional tolerances of the components which make up the wall (by reference to the British Standards relating to the bricks, blocks and boards, or by using the data from the respective manufacturers). Allowances may need to be made for the quality of building operatives and the degree of site supervision or control available. The limitations in respect of exposure of the proposed building as set out in Table 9 must also be observed.

(1) The NHBC requirement for a residual cavity width is increased to 75 mm in areas of very severe exposure where the outer leaf is fairfaced masonry

Table 9 Maximum allowable exposure index  $E^{(1)}$

Construction	Maximum allowable exposure index $E^{(1)}$
All external masonry walls protected by: rendering (to BS EN 13914-1 : 2016), tile hanging, slate hanging, or timber, plastic or metal weatherboarding or cladding	No restriction
One or more external masonry walls constructed from facing clay brickwork or natural stone, the porosity of which exceeds 20% by volume. Mortar joints must be flush pointed or weatherstruck	100
One or more external masonry walls constructed from calcium silicate bricks, concrete blocks, reconstituted stone, or natural stone, the porosity of which is less than 20% by volume, or any material with raked mortar joints	88

(1) To BS 5618 : 1985.

9.1.17 From ground level, the maximum height of continuous cavity walls must not exceed 12 metres; above 12 metres, the maximum height of continuous cavity walls must not exceed 7 metres. In both cases, breaks should be in the form of continuous horizontal cavity trays and weepholes discharging to the outside.

9.1.18 An external render coat or other suitable finish must be applied in locations where such application would be normal practice; care must be taken to ensure that the residual cavity is not bridged by mortar.

## 9.2 Installation

9.2.1 Installation instructions provided by the Certificate holder were assessed and judged to be appropriate and adequate.

9.2.2 Installation must be carried out in accordance with this Certificate and the Certificate holder's instructions. A summary of instructions and guidance is provided in Annex A of this Certificate.

9.2.3 The steel frame must be constructed ahead of the outer leaf, as the boards are fastened to the cavity face of the steel frame. It is essential that the spacing of wall ties/clips allows one long edge of each board to be secured at a minimum of two points.

9.2.4 Vertical joints in the boards must be staggered and all joints tightly butted. Where protrusions occur in the cavity, the boards should be carefully cut to fit.

9.2.5 If installation of the boards is terminated below the highest level of the wall, the top edge of the insulation must be protected by a cavity tray and alternate perpendicular joints of the masonry outer leaf raked out to provide adequate drainage of water from the tray.

9.2.6 In all situations, it is particularly important to ensure during installation that:

- installation is carried out to the highest level on each wall, or the top edge of the insulation is protected by a cavity tray
- cavity trays are used with appropriate stop ends and weepholes at lintel level
- cavity battens and/or boards are used during construction to prevent bridging by mortar droppings
- wall ties are installed correctly and are thoroughly clean
- excess mortar is cleaned from the cavity face of the leading leaf and any debris removed from the cavity
- mortar droppings are cleaned from the exposed edges of installed boards
- insulation boards are properly installed and butt-jointed
- the DPC at ground level does not project into the cavity, as it can form a trap for mortar bridging
- raked or recessed mortar joints are avoided in very severe exposure areas.

## 9.3 Workmanship

Practicability of installation was assessed by the BBA, on the basis of Certificate holder's information. To achieve the performance described in this Certificate, installation of the product must be carried out by a competent general builder, or a contractor, experienced with this type of product.

## 9.4 Maintenance and repair

As the product is confined within the wall cavity and has suitable durability, maintenance is not required.

## **10 Manufacture**

10.1 The production processes for the product have been assessed, and provide assurance that the quality controls are satisfactory according to the following factors:

10.1.1 The manufacturer has provided documented information on the materials, processes, testing and control factors.

10.1.2 The quality control operated over batches of incoming materials has been assessed and deemed appropriate and adequate.

10.1.3 The quality control procedures and product testing to be undertaken have been assessed and deemed appropriate and adequate.

10.1.4 The process for management of non-conformities has been assessed and deemed appropriate and adequate.

10.1.5 An audit of each production location was undertaken, and it was confirmed that the production process was in accordance with the documented process, and that equipment has been properly tested and calibrated.

† 10.2 The BBA has undertaken to review the above measures on a regular basis through a surveillance process, to verify that the specifications and quality control operated by the manufacturer are being maintained.

## **11 Delivery and site handling**

11.1 The Certificate holder stated that the product is delivered to site wrapped in polythene with the production code printed on each board. Each pallet carries a label bearing the production date, board size and thickness.

11.2 Delivery and site handling must be performed in accordance with the Certificate holder's instructions and this Certificate, including:

11.2.1 The product must be protected from prolonged exposure to direct sunlight and UV, and should be stored either under cover or protected with light-coloured, opaque polythene sheets. Where possible, packs should be stored inside. If stored outside, the product must be raised above ground level out of contact with ground moisture and must be protected from rain.

11.2.2 The product must not be exposed to naked flame or other ignition sources. Care must be taken to avoid contact with solvents and with materials containing volatile organic compounds. If damaged, the product must be discarded.

Supporting information in this Annex is relevant to the product but has not formed part of the material assessed for the 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.

### Management Systems Certification for production

The management system of the manufacturer has been assessed and registered as meeting the requirements of BS EN ISO 9001 : 2015 and BS EN ISO 14001 : 2015 by Centre for Assessment (Certificates 23/1568 and 23/1570 respectively).

### Additional information on installation

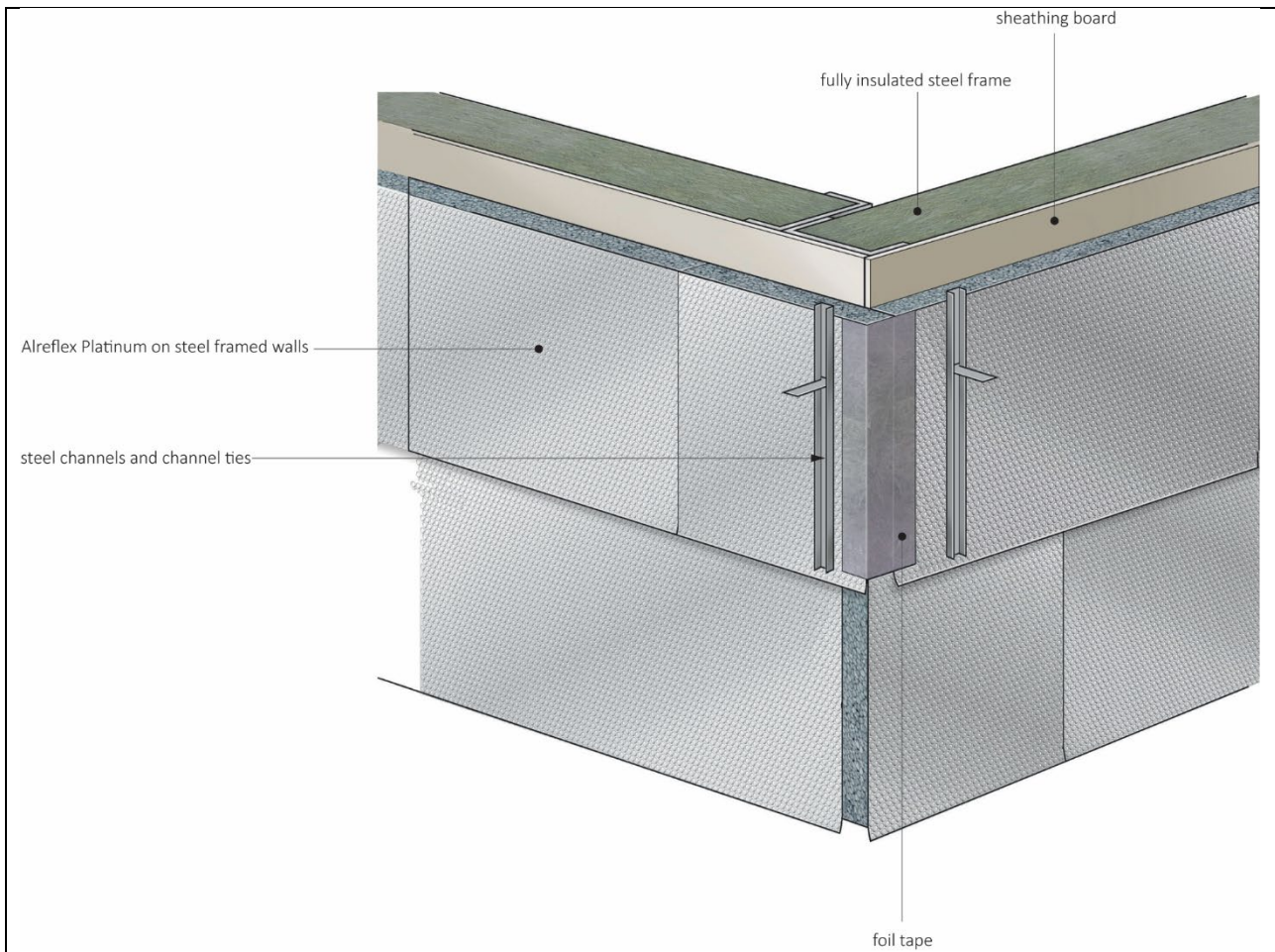
A.1 It must be ensured that:

- the foil is facing towards the cavity
- corners are block bonded
- vertical joints are staggered
- the boards tightly butt against the cavity closer.

A.2 Boards must be measured and cut to fit around openings.

A.3 A typical installation is shown in Figure 2.

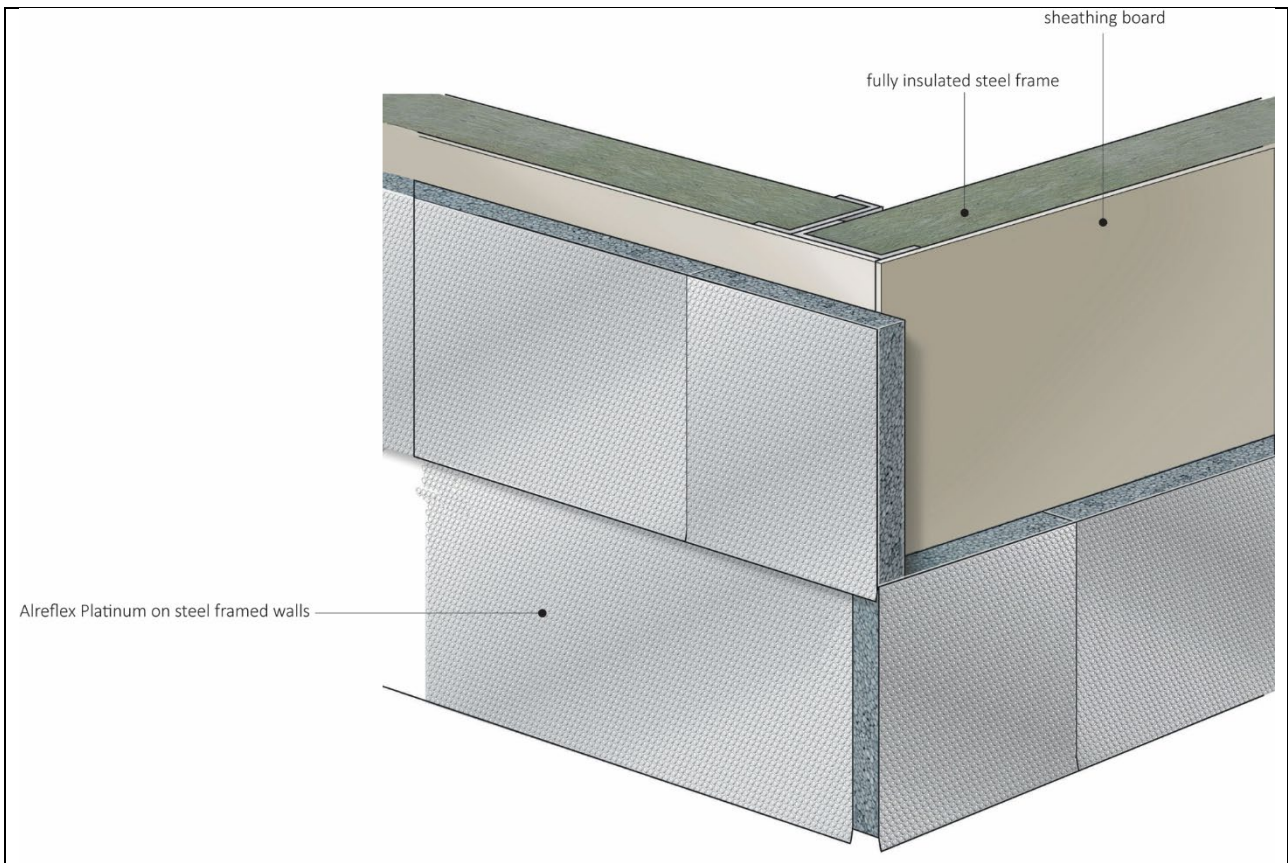
Figure 2 Steel framed installation



A.4 The product should be temporarily fixed to the outside of the frame using self-tapping screws and washers or mushroom screws.

A.5 Care should be taken to ensure that the boards are tightly butted together in a block-bonded pattern and that vertical joints are staggered, as shown in Figure 3.

Figure 3 Staggered joints

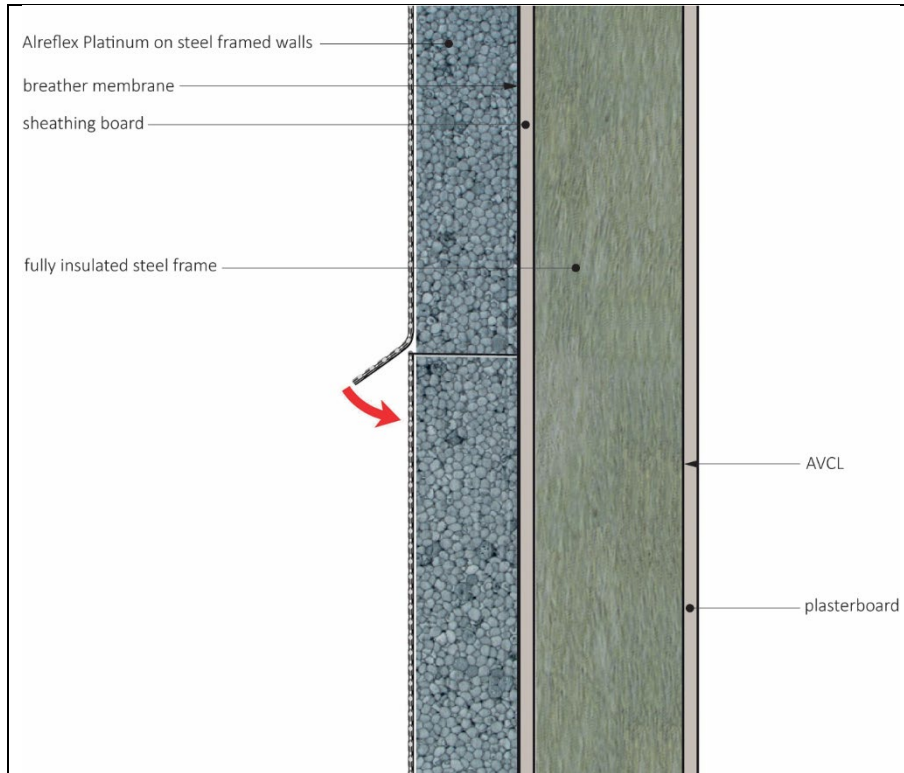


A.6 Retaining channels are fixed through the boards. Advice on instructions for the fixing details should be sought from the Certificate holder, but such advice is outside the scope of this Certificate.

A.7 All corners should be taped with a suitable reflective tape. The Certificate holder can advise on suitable products for this purpose; however, such advice and products are outside the scope of this Certificate.

A.8 The foil overhanging laps should be fitted over lower boards and folded down to create a weather lap, as shown in Figure 4.

**Figure 4** *Overlap of foil to create weather lap*



A.9 Boards are measured and cut to fit around openings and tightly butted against cavity closers.

A.10 Any damage to the foil facing during installation should be repaired with a suitable reflective tape. The Certificate holder can advise on suitable products for this purpose; however, such advice and products are outside the scope of this Certificate

A.11 The outer masonry leaf is to be constructed in the conventional manner, using wall ties to restrain the outer leaf to the steel frame. It is essential that all wall ties slope downwards towards the outer leaf.

## Bibliography

BRE Digest 465 *U-values for light steel-frame construction*

BRE Report BR 262 : 2002 *Thermal insulation: avoiding risks*

BRE Report BR 443 : 2019 *Conventions for U-value calculations*

BS 5250 : 2021 *Management of moisture in buildings — Code of practice*

BS 5618 : 1985 *Code of practice for thermal insulation of cavity walls (with masonry or concrete inner and outer leaves) by filling with urea-formaldehyde (UF) foam systems*

BS 8000-3 : 2020 *Workmanship on construction sites — Masonry — Code of practice*

BS EN 351-1 : 2023 *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 845-1 : 2013 + A1 : 2016 *Specification for ancillary components for masonry — Wall ties, tension straps, hangers and brackets*

BS EN 1603 : 2013 *Thermal insulating products for building applications — Determination of dimensional stability under constant normal laboratory conditions.(23°C and 50% RH)*

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

BS EN 1993-1-2 : 2005 *Eurocode 3 — Design of steel structures — General rules — Structural fire design*  
NA to BS EN 1993-1-2 : 2005 *UK National Annex to Eurocode 3 — Design of steel structures — General rules — Structural fire design*

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

BS EN 1995-1-1 : 2004 + A2 : 2014 *Eurocode 5 : Design of timber structures — General — Common rules and rules for buildings*  
NA to BS EN 1995-1-1 : 2004 + A1 : 2008 *UK National Annex to Eurocode 5 : Design of timber structures — General — Common rules and rules for buildings*

BS EN 1996-1-1 : 2005 *Eurocode 6 : Design of masonry structures — General rules for reinforced and unreinforced masonry structures*  
NA to BS EN 1996-1-1 : 2005 *UK National Annex to Eurocode 6 : Design of masonry structures — General rules for reinforced and unreinforced masonry structures*  
BS EN 1996-1-2 : 2005 + A1 : 2012 *Eurocode 6 : Design of masonry structures — General rules — Structural fire design*  
NA to BS EN 1996-1-2 : 2005 + A1 : 2012 *UK National Annex to Eurocode 6 : Design of masonry structures — General rules — Structural fire design*  
BS EN 1996-2 : 2006 *Eurocode 6 : Design of masonry structures — Design considerations, selection of materials and execution of masonry*  
NA to BS EN 1996-2 : 2006 *UK National Annex to Eurocode 6 — Design of masonry structures — Design considerations, selection of materials and execution of masonry*  
BS EN 1996-3 : 2006 *Eurocode 6 : Design of masonry structures — Simplified calculation methods for unreinforced masonry structures*  
NA + A1 : 2014 to BS EN 1996-3 : 2006 *UK National Annex to Eurocode 6 — Design of masonry structures — Simplified calculation methods for unreinforced masonry structures*

BS EN 12087 : 2013 *Thermal insulating products for building applications — Determination of long term water absorption by immersion*

BS EN 12667 : 2001 *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*

BS EN 13163 : 2012 + A2 : 2016 *Thermal insulation products for buildings — Factory made expanded polystyrene (EPS) products — Specification*

BS EN 13501-1 : 2018 *Fire classification of construction products and building elements — Classification using data from reaction to fire tests*

BS EN 13914-1 : 2016 *Design, preparation and application of external rendering and internal plastering — External rendering*

BS EN ISO 6946 : 2017 *Building components and building elements — Thermal resistance and thermal transmittance — Calculation method*

BS EN ISO 9001 : 2015 *Quality management systems — Requirements*

BS EN ISO 10456 : 2007 *Building materials and products — Hygrothermal properties — Tabulated design values and procedures for determining declared and design thermal values*

BS EN ISO 14001 : 2015 *Environmental Management systems — Requirements with guidance for use*

BS EN ISO 22097 : 2023 *Thermal insulation for buildings — Reflective insulation products — Determination of thermal performance*

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