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Agrément Certificate

20/5832

Product Sheet 2 Issue 2

URSA RAINSCREEN SLABS

URSA WALLTEC BLACK AND URSAPAN BLACK FOR USE IN TIMBER OR STEEL FRAME CONSTRUCTIONS

This Agrément Certificate Product Sheet⁽¹⁾ relates to URSA WALLTEC BLACK⁽²⁾ and URSAPAN BLACK⁽²⁾ for use in Timber or Steel Frame Constructions, comprising mineral wool (MW) slabs with a black glass fibre facing on one side, for use as insulated sheathing on new and existing conventional timber- or steel-frame walls with a masonry outer leaf, in domestic and non-domestic buildings.

(1) Hereinafter referred to as 'Certificate'.

(2) URSA WALLTEC BLACK and URSAPAN BLACK are registered trademarks.

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

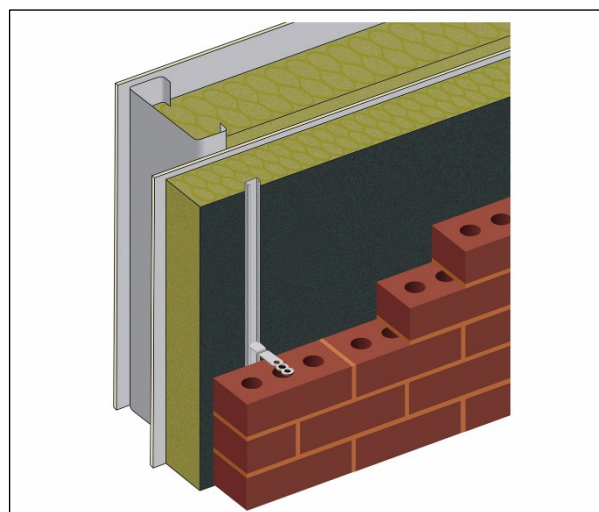
Ongoing contractual Scheme elements†:

- regular assessment of production
- formal 3-yearly review

The BBA has awarded this 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

Date of Second issue: 10 June 2024
Originally certified on 26 November 2020



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

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.

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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 URSA WALLTEC BLACK and URSAPAN BLACK for use in Timber or Steel Frame Constructions, 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)

Requirement:	B3(4)	Internal fire spread (structure)
Comment:		The products can contribute to satisfying this Requirement. See section 2 of this Certificate.
Requirement:	B4(1)	External fire spread (structure)
Comment:		The products may be restricted by this Requirement. See section 2 of this Certificate.
Requirement:	C2(a)	Resistance to moisture
Comment:		The product can contribute to satisfying this Requirement. See section 3 of this Certificate.
Requirement:	C2(b)	Resistance to moisture
Comment:		The product can contribute to satisfying this Requirement. See section 9 of this Certificate.
Requirement:	C2(c)	Resistance to moisture
Comment:		The products can contribute to satisfying this Requirement. See section 3 of this Certificate.
Requirement:	L1(a)(i)	Conservation of fuel and power
Comment:		The products can contribute to satisfying this Requirement. See section 6 of this Certificate.
Regulation:	7(1)	Materials and workmanship
Comment:		The products are acceptable. See sections 8 and 9 of this Certificate.
Regulation:	7(2)	Materials and workmanship
Comment:		The products may be restricted by this Regulation. See section 2 of this Certificate.
Regulation:	25B	Nearly zero-energy requirements for new buildings
Regulation:	26	CO₂ emission rates for new buildings
Regulation:	26A	Fabric energy efficiency rates (applicable to England only)
Regulation:	26A	Primary energy rates for new buildings (applicable to Wales only)
Regulation:	26B	Fabric performance values for new dwellings (applicable to Wales only)
Regulation:	26C	Target primary energy rates for new buildings (applicable to England only)
Regulation:	26C	Energy efficiency rating (applicable to Wales only)
Comment:		The products can contribute to satisfying these Regulations. See section 6 of this Certificate.



The Building (Scotland) Regulations 2004 (as amended)

Regulation:	8(1)	Fitness and durability of materials and workmanship
Comment:		The products are acceptable. See sections 8 and 9 of this Certificate.

Regulation:	8(3)	Fitness and durability of materials and workmanship
Comment:		The products may be restricted by this Regulation. See section 2 of this Certificate.
Regulation:	9	Building standards – construction
Standard:	2.4	Cavities The products can contribute to satisfying this Standard, with reference to clauses 2.4.2 ⁽¹⁾⁽²⁾ , 2.4.4 ⁽¹⁾ and 2.4.6 ⁽²⁾ . See section 2 of this Certificate.
Standard:	2.6	Spread to neighbouring buildings The products may be restricted by this Standard, with reference to clauses 2.6.5 ⁽¹⁾ and 2.6.6 ⁽²⁾ . See section 2 of this Certificate.
Standard:	3.4	Moisture from the ground The products can contribute to satisfying this Standard, with reference to clauses 3.4.1 ⁽¹⁾⁽²⁾ and 3.4.5 ⁽¹⁾⁽²⁾ . See section 3 of this Certificate.
Standard:	3.10	Precipitation The products can contribute to satisfying this Standard, with reference to clauses 3.10.1 ⁽¹⁾⁽²⁾ and 3.10.3 ⁽¹⁾⁽²⁾ . See section 9 of this Certificate.
Standard:	3.15	Condensation The products can contribute to satisfying this Standard, with reference to clauses 3.15.1 ⁽¹⁾⁽²⁾ , 3.15.4 ⁽¹⁾⁽²⁾ and 3.15.5 ⁽¹⁾⁽²⁾ . See section 3 of this Certificate.
Standard:	6.1(b)(c)	Energy demand The products can contribute to satisfying this Standard with reference to clauses 6.1.1 ⁽¹⁾ and 6.1.2 ⁽²⁾ . See section 6 of this Certificate.
Standard:	6.2	Building insulation envelope The products can contribute to satisfying this Standard with reference to clauses 6.2.1 ⁽¹⁾⁽²⁾ , 6.2.3 ⁽¹⁾ , 6.2.4 ⁽¹⁾⁽²⁾ , 6.2.5 ⁽²⁾ , 6.2.6 ⁽¹⁾⁽²⁾ , 6.2.7 ⁽¹⁾ , 6.2.8 ⁽²⁾ , 6.2.9 ⁽¹⁾⁽²⁾ , 6.2.10 ⁽¹⁾ , 6.2.11 ⁽¹⁾⁽²⁾ , 6.2.12 ⁽²⁾ and 6.2.13 ⁽¹⁾⁽²⁾ . See section 6 of this Certificate.
Standard:	7.1(a)(b)	Statement of sustainability The products can contribute to satisfying the relevant requirements of Regulation 9, Standards 1 to 6, and therefore will contribute to a construction meeting a bronze level of sustainability as defined in this Standard. In addition, the products can contribute to a construction meeting a higher level of sustainability as defined in this Standard, with reference to clauses 7.1.4 ⁽¹⁾ , 7.1.6 ⁽¹⁾⁽²⁾ , 7.1.7 ⁽¹⁾ , 7.1.9 ⁽²⁾ and 7.1.10 ⁽²⁾ . See section 6 of this Certificate.
Regulation:	12	Building standards – conversion
Comment:		All comments given for the products under Regulation 9, Standards 1 to 6, 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(1)(a)(i)(iii)	Fitness of materials and workmanship
Comment:	(b)(i)(ii)	The products are acceptable. See sections 8 and 9 of this Certificate.
Regulation:	23(2)	Fitness of materials and workmanship
Comment:		The products may be restricted by this Regulation. See section 2 of this Certificate.
Regulation:	28(a)	Resistance to moisture and weather
Comment:		The products can contribute to satisfying this Regulation. See section 3 of this Certificate.

Regulation:	28(b)	Resistance to moisture and weather
Comment:		The products can contribute to satisfying this Regulation. See section 9 of this Certificate.
Regulation:	29	Condensation
Comment:		The products can contribute to satisfying this Regulation. See section 3 of this Certificate.
Regulation:	35(4)	Internal fire spread – structure
Comment:		The product can contribute to satisfying this Regulation. See section 2 of this Certificate.
Regulation:	36(a)	External fire spread
Comment:		The products may be restricted by this Regulation. See section 2 of this Certificate.
Regulation:	39(a)(i)	Conservation measures
Comment:		The products can contribute to satisfying this Regulation. See section 6 of this Certificate.
Regulation:	40(2)	Target carbon dioxide emission rate
Regulation:	43(1)(2)	Renovation of thermal elements
Regulation:	43(b)	Nearly zero-energy requirements for new buildings
Comment:		The products can contribute to satisfying these Regulations. See section 6 of this Certificate.

Additional Information

NHBC Standards 2024

In the opinion of the BBA, URSA WALLTEC BLACK and URSAPAN BLACK for use in Timber or Steel Frame Constructions, 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*, 6.2 *External timber framed walls* and 6.10 *Light steel framed walls and floors*.

Fulfilment of Requirements

The BBA has judged URSA WALLTEC BLACK and URSAPAN BLACK for use in Timber or Steel Frame Constructions to be satisfactory for use as described in this Certificate. The products have been assessed for use as insulated sheathing on new and existing conventional timber- or steel-frame walls with a masonry outer leaf, in domestic and non-domestic buildings.

ASSESSMENT

Product description and intended use

The Certificate holder provided the following description for the products under assessment. URSA WALLTEC BLACK and URSAPAN BLACK for use in Timber or Steel Frame Constructions comprise MW slabs with a black glass fibre facing on one side. The products may be installed in a two-layer system.

The products have the nominal characteristics given in Table 1.

Table 1 Nominal characteristics

Characteristic (unit)	Product	
	URSA WALLTEC BLACK	URSAPAN BLACK
Length (mm)	1350	1350
Width (mm)	600	600
Thickness (mm)	100, 120, 140, 150, 160, 180 and 200	100, 120, 140 and 160
Density (kg·m ⁻³)	32	20
Colour	Olive green with black facing	Olive green with black facing
Edge profile	Square	Square

Ancillary Items

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

- insulation fixings with retaining discs (minimum 70 mm diameter)
- brick ties and tie channels
- 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 products were tested for reaction to fire and the classification is given in Table 2.

Table 2 Reaction to fire classification

Product assessed	Assessment method	Configurations	Result
URSA WALLTEC BLACK URSAPAN BLACK	NF EN 13501-1 : 2018	Without substrate, or with any A1 or A2-s1,d0 class substrate with a density $\geq 652 \text{ kg}\cdot\text{m}^{-3}$ and with a thickness $\geq 9 \text{ mm}$	A1

2.1.2 On the basis of data assessed, the configurations in Table 2 will be unrestricted under the documents supporting the national Building Regulations.

2.1.3 The classification and permissible areas of use of other specifications should be confirmed by reference to the requirements of the documents supporting the national Building Regulations.

2.1.4 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.

2.2 Fire resistance

Where the products are incorporated in a wall construction where fire resistance is required by the documents supporting the national Building Regulations, the fire resistance should be confirmed by a suitably experienced and competent individual.

3 Hygiene, health and the environment

Data were assessed for the following characteristics.

3.1 Effectiveness against rising damp

3.1.1 The products were tested for short-term water absorption by partial immersion and the results are given in Table 3.

Table 3 Short-term water absorption by partial immersion

Product assessed	Assessment method	Requirement	Result
URSA WALLTEC BLACK	NBN EN 1609 : 2013, Method B	$\leq 1 \text{ kg} \cdot \text{m}^{-2}$	Pass
URSAPAN BLACK			Pass

3.1.2 On the basis of data assessed, the products, when used in a properly drained cavity, will not transfer moisture by capillary absorption and may be used in situations where they bridge the damp-proof course (DPC) in walls. Dampness from the ground will not pass through to the inner leaf provided the wall is detailed in accordance with the requirements and provisions of the national Building Regulations.

3.2 Water vapour permeability

3.2.1 The water vapour resistivity of the products is given in Table 4.

Table 4 Water vapour resistivity

Material	Assessment method	Requirement	Result
URSA WALLTEC BLACK	BS EN 13162 : 2012 and BS EN ISO 10456 : 2007	Value achieved	$5 \text{ MN} \cdot \text{s} \cdot \text{g}^{-1} \cdot \text{m}^{-1}$
URSAPAN BLACK			

3.2.2 An AVCL must be used in all constructions where the condensation risk analysis shows this is necessary.

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

6.1.1 The products were tested for thermal conductivity and the results are given in Table 5.

Table 5 Thermal conductivity

Product assessed	Assessment method	Requirement	Result
URSA WALLTEC BLACK	BS EN 13162 : 2012	Declared value (λ_D)	$0.032 \text{ W} \cdot \text{m}^{-1} \cdot \text{K}^{-1}$
URSAPAN BLACK			$0.035 \text{ W} \cdot \text{m}^{-1} \cdot \text{K}^{-1}$

6.2 Conservation of fuel and power

6.2.1 Example U values are given in Tables 6 and 7.

Table 6 Example U values — timber frame⁽¹⁾⁽²⁾

U Value (W·m ⁻² ·K ⁻¹)	Insulation thickness installed against the sheathing board – no insulation in the 140 mm timber frame (mm) ⁽³⁾		Insulation thickness installed against the sheathing board – fully filled with insulation in the 140 mm timber frame (mm) ⁽⁴⁾	
	URSA WALLTEC BLACK	URSAPAN BLACK	URSA WALLTEC BLACK	URSAPAN BLACK
0.13	220 ⁽⁶⁾	240 ⁽⁶⁾	120	140
0.15	180	200 ⁽⁶⁾	100	100
0.17	160	200 ⁽⁶⁾	100	100
0.18	150	200 ⁽⁶⁾	100	100
0.21	140	140	100	100
0.26	100	120	100	100
0.28	100	100	— ⁽⁵⁾	— ⁽⁵⁾
0.30	100	100	— ⁽⁵⁾	— ⁽⁵⁾

- (1) Construction, external to internal, comprises:
102.5 mm brick ($\lambda = 0.77 \text{ W} \cdot \text{m}^{-1} \cdot \text{K}^{-1}$), 50 mm slightly vented cavity ($580 \text{ mm}^2 \cdot \text{m}^{-1}$), URSA WALLTEC BLACK / URSAPAN BLACK rainscreen slab, breather membrane, 9 mm timber OSB (oriented strand board) sheathing board ($\lambda = 0.13 \text{ W} \cdot \text{m}^{-1} \cdot \text{K}^{-1}$), 140 mm timber frame ($\lambda = 0.13 \text{ W} \cdot \text{m}^{-1} \cdot \text{K}^{-1}$, 15% fraction), AVCL, and 15 mm plasterboard ($\lambda = 0.25 \text{ W} \cdot \text{m}^{-1} \cdot \text{K}^{-1}$).
- (2) Calculations based upon 4.4 stainless steel channel fixings per m² (6.6 mm² cross-sectional area, $\lambda = 17 \text{ W} \cdot \text{m}^{-1} \cdot \text{K}^{-1}$).
- (3) Insulation installed against the timber sheathing board with no insulation in the timber frame.
- (4) Insulation installed against the timber sheathing board with 140 mm of insulation in the timber frame ($\lambda = 0.035 \text{ W} \cdot \text{m}^{-1} \cdot \text{K}^{-1}$) with a 15% timber frame fraction.
- (5) Achieves the U value with no additional insulation.
- (6) Achieved by double layering with thicknesses specified in Table 1.

Table 7 Example U values — steel frame⁽¹⁾⁽²⁾

U Value (W·m ⁻² ·K ⁻¹)	Insulation thickness installed against the sheathing board – no insulation in the 90 mm steel frame (mm) ⁽³⁾		Insulation thickness installed against the sheathing board – fully filled with insulation in the 90 mm steel frame (mm) ⁽⁴⁾	
	URSA WALLTEC BLACK	URSAPAN BLACK	URSA WALLTEC BLACK	URSAPAN BLACK
0.13	220 ⁽⁵⁾	240 ⁽⁵⁾	200 ⁽⁵⁾	200 ⁽⁵⁾
0.15	200	200 ⁽⁵⁾	140	160
0.17	160	200 ⁽⁵⁾	120	140
0.18	150	200 ⁽⁵⁾	120	120
0.21	140	140	100	100
0.26	100	120	100	100
0.28	100	100	100	100
0.30	100	100	100	100

- (1) Construction, external to internal, comprises:
102.5 mm brick ($\lambda = 0.77 \text{ W} \cdot \text{m}^{-1} \cdot \text{K}^{-1}$), 50 mm clear cavity, URSA WALLTEC BLACK / URSAPAN BLACK rainscreen slab, breather membrane, 9 mm timber OSB (oriented strand board) sheathing board ($\lambda = 0.13 \text{ W} \cdot \text{m}^{-1} \cdot \text{K}^{-1}$), 90 mm light-steel-frame system (0.2% fraction), AVCL, and 15 mm plasterboard ($\lambda = 0.25 \text{ W} \cdot \text{m}^{-1} \cdot \text{K}^{-1}$).
- (2) Calculations based upon 4.4 stainless steel channel fixings per m² (6.6 mm² cross-sectional area, $\lambda = 17 \text{ W} \cdot \text{m}^{-1} \cdot \text{K}^{-1}$).
- (3) Insulation installed against the timber sheathing board with no insulation in the steel frame.
- (4) Insulation installed against the timber sheathing board with 90 mm of insulation in the steel frame ($\lambda = 0.038 \text{ W} \cdot \text{m}^{-1} \cdot \text{K}^{-1}$) with a 0.2% steel frame fraction.
- (5) Achieved by double layering with thicknesses specified in Table 1.

6.2.2 The U value of a completed wall construction will depend on the insulation thickness, number and type of fixings, the insulating value of the substrate, and its internal finish.

6.2.3 The products 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 products were assessed.

8.2 The products were tested for dimensional stability and the results are given in Table 8.

Table 8 Dimensional stability

Product assessed	Assessment method	Requirement	Result
URSA WALLTEC BLACK	Dimensional stability to NBN EN 1604 : 2013 (23°C and 90% RH for 48 hours)	Length, width and reduction in thickness ≤ 1 % change	Pass
URSAPAN BLACK			Pass

8.3 Service life

Under normal service conditions, the products will have a life at least equivalent to the structure in which they are 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

9.1.1 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 Timber and steel frame constructions 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 1993-1-2 : 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 It is essential that such walls are designed and constructed to incorporate the normal precautions against moisture ingress, including the use of a breather membrane over the timber sheathing in framing board applications.

9.1.4 As with other forms of wall insulation, where buildings need to comply with the *NHBC Standards 2024*, specifiers must observe the requirements of that document.

9.1.5 Timber- or 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.

9.1.6 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.

9.1.7 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.

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

Interstitial condensation

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

9.1.10 If the products are 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

9.1.11 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 9.1.8 of this Certificate.

9.1.12 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 9.1.8 of this Certificate.

Buildings up to and including 25 metres high

9.1.13 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). This may be achieved by designing a cavity width which takes into account 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, and for the limitations in respect of exposure of the proposed building (as set out in Table 9).

Table 9 Maximum allowable total exposure factors of different constructions

Construction	Maximum allowable exposure factor $E^{(1)}$
All external masonry walls protected by: rendering (to BS EN 13914-1 : 2016), tile/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.

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

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

Buildings over 25 metres in height

9.1.16 The width of the residual clear cavity to be achieved must be in excess of 50 mm, and the following requirements apply in addition to those stated in 9.1.13 to 9.1.15:

- the specifier must take extra care when detailing to ensure that the introduction of the insulation does not affect the weather resistance of the wall. Above average site supervision is recommended during installation of the products
- where, for structural reasons, the cavity width is reduced, eg by the intrusion of ring beams, a minimum residual cavity width of 25 mm must be maintained and extra care must be taken with fixings and weatherproofing, eg the inclusion of cavity trays with weepholes.

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 are provided in Annex A of this Certificate.

9.2.3 The timber- or-steel frame must be constructed ahead of the outer leaf, as the slabs are fastened to the cavity face of the frame.

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

9.2.5 If installation of the slabs is terminated below the highest level of the wall, the top edge of the insulation must be protected by a cavity tray and alternate perpend 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 slabs
- insulation slabs 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 the Certificate holder's information. To achieve the performance described in this Certificate, installation of the products must be carried out by a competent general builder, or a contractor, experienced with these types of products.

9.4 Maintenance and repair

As the products are confined between the wall and the masonry outer leaf, and has suitable durability (see section 8), and provided the integrity of the masonry outer leaf is maintained throughout the life of the system, 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 products are delivered to site in polyethene-wrapped packs. Each pack carries a label bearing the Certificate holder's name, product description and the BBA logo incorporating the number of this Certificate.

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 products must be stored clear of the ground, on a clean, level surface and preferably under cover to protect them from prolonged exposure to moisture or mechanical damage.

11.2.2 Dust masks, gloves and long-sleeved clothing must be worn when cutting and handling the slabs.

11.2.3 Damaged, contaminated, or wet slabs must be discarded.

ANNEX A – SUPPLEMENTARY INFORMATION †

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.

UKCA marking

The Certificate holder has taken the responsibility of UKCA marking the products, in accordance with Designated Standard EN 13162 : 2012.

CE marking

The Certificate holder has taken the responsibility of CE marking the products, in accordance with harmonised European Standard EN 13162 : 2012.

Management Systems Certification for production

The management system of the manufacturer has been assessed and registered as meeting the requirements of ISO 9001 : 2015 and ISO 14001 : 2015 by LGA InterCert GmbH and BQA nv respectively (Certificates 01 100 1300949 and BQA_EMS_C_2016673 respectively).

Additional information on installation

General

- A.1 The products can be cut using a sharp knife but care must be taken to prevent damage, particularly to edges.
- A.2 Cavity barriers must be provided at the junctions of the external wall and roof space as required by the documents supporting the national Building Regulations.
- A.3 It is important to ensure a tight fit between slabs. Trimming must be accurate, to achieve close-butt joints and continuity of insulation.
- A.4 The slabs are fixed against the external face of the sheathing board in conjunction with the masonry outer leaf.

Procedure

- A.5 The products should be applied with the black glass fleece side facing outwards.
- A.6 Slabs must be close-butt at all vertical and horizontal joints, and at corners. The horizontal joints of the slabs must be staggered, brick bond pattern, and in accordance with good practice.
- A.7 To assist installation, the products may be initially fixed using suitable insulation-retaining clips with a minimum head diameter of 70 mm – one fixing per slab or part-slab is normally sufficient.
- A.8 The slabs must be carefully cut using a sharp knife to fit around any protrusions into the cavity.
- A.9 An AVCL is placed between the plasterboard and the steel/timber frame. A breather membrane is placed between the sheathing board and the products, see Figure 1.

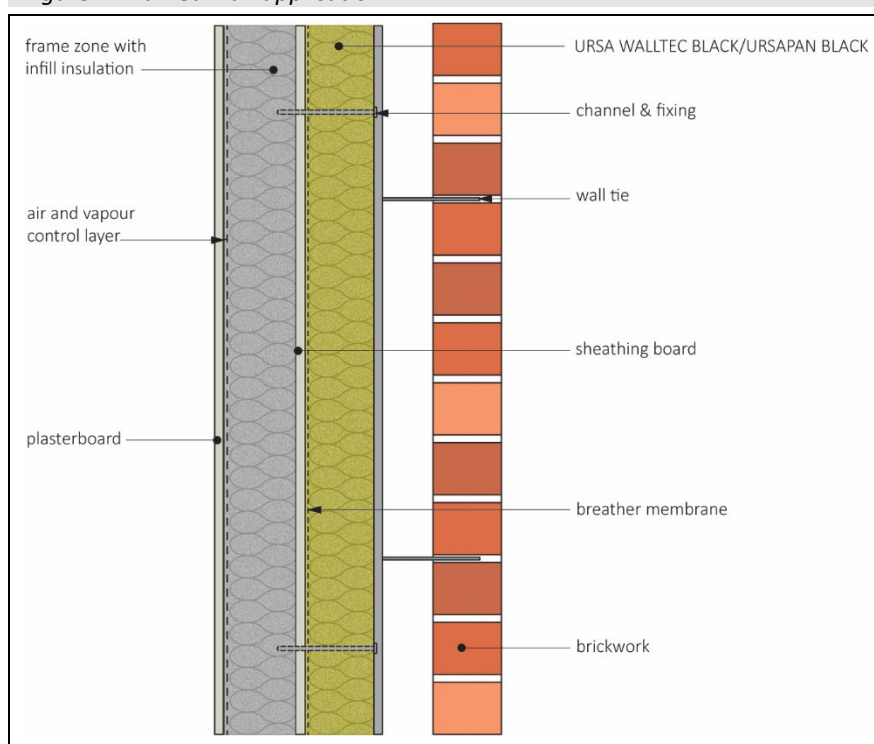
Double layering

A.10 The products may be installed in a two layer system, which is identical to the single layer system but the vertical joints in the second layer must be staggered to the first layer.

A.11 The first layer of the insulation is installed using one central mechanical fixing per slab, ensuring this fixing does not interfere with the final fixing pattern for the brick tie channels.

A.12 The second layer is positioned with the vertical joints staggered; the final fixings must be installed as per the Certificate holder's instructions.

Figure 1 Framed wall application



A.13 The insulation must be installed tightly against the sheathing board and secured to the frame studs, through the brick tie channels, using suitable screw or bolt fixings. The brick tie channels are installed at a maximum of 600 mm centres horizontally. The fixings must give a positive stand-off or incorporate a compression sleeve.

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

BS EN 1991-1-4 : 2005 + A1 : 2010 *Eurocode 1 — Actions on structures — General actions — Wind actions*
NA to BS EN 1991-1-4 : 2005 + A1 : 2010 UK National Annex to *Eurocode 1 — Actions on structures — General actions — Wind actions*

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 : 2014 UK National Annex to *Eurocode 5 — Design of timber structures — General — Common rules and rules for buildings*

BS EN 1996-1-1 : 2005 + A1 : 2012 *Eurocode 6 — Design of masonry structures — General rules for reinforced and unreinforced masonry structures*
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BS EN 1996-1-2 : 2005 *Eurocode 6 — Design of masonry structures — General rules — Structural fire design*
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BS EN 1996-3 : 2006 *Eurocode 6 — Design of masonry structures — Simplified calculation methods for unreinforced masonry structures*
NA 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 13162 : 2012 + A1 : 2015 *Thermal insulation products for buildings — Factory made mineral wool (MW) products — specification*

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

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

ISO 9001 : 2015 *Quality management systems — Requirements*

ISO 14001 : 2015 *Environmental management systems — Requirements with guidance for use*

NBN EN 1604 : 2013 *Thermal insulating products for building applications — Determination of dimensional stability under specified temperature and humidity conditions*

NBN EN 1609 : 2013 *Thermal insulating products for building applications — Determination of short term water absorption by partial immersion*

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

Conditions of Certificate

Conditions

1 This Certificate:

- relates only to the product 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.

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.

3 This Certificate will be displayed on the BBA website, and the Certificate Holder is entitled to use the Certificate and Certificate logo, provided that the product 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.

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

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

6 Any information relating to the manufacture, supply, installation, use, maintenance and removal of this product which is contained or referred to in this Certificate is the minimum required to be met when the product 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.

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