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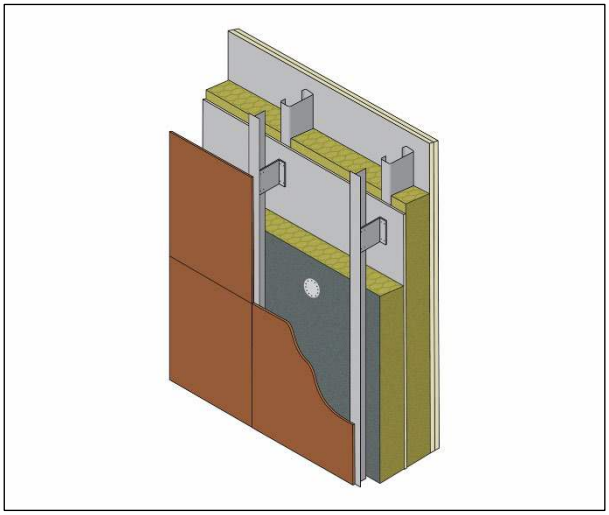
Agrément Certificate
20/5832
Product Sheet 1 Issue 2

URSA RAINSCREEN SLABS

URSA WALLTEC BLACK AND URSAPAN BLACK FOR USE IN RAINSCREEN CLADDING SYSTEMS

This Agrément Certificate Product Sheet(1) relates to URSA WALLTEC BLACK(2) and URSAPAN BLACK(2) for use in Rainscreen Cladding Systems, comprising mineral wool (MW) slabs with a black glass fibre facing on one side, for use as insulation on timber- and steel-frame walls or masonry walls, in new and existing domestic and non-domestic buildings, in conjunction with ventilated cladding systems.

(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

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 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

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.

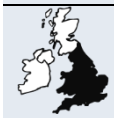
Any photographs are for illustrative purposes only, do not constitute advice and should not be relied upon.

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 Rainscreen Cladding Systems, 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 products can contribute to satisfying this Requirement. See section 3 of this Certificate.
Requirement:	**C2(b)**	**Resistance to moisture**
Comment:		The products 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; however, compensating fabric measures may be required. 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**	**CO_2 emission rates for new buildings**
Regulation:	**26A**	**Fabric energy efficiency rates (applicable to England only)**
Regulation:	**26A**	**Primary energy efficiency 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; however, compensating fabric/service measures may be required. 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
Comment:		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
Comment:		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
Comment:		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 3 of this Certificate.
Standard:	3.15	Condensation
Comment:		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
Comment:		The products can contribute to satisfying this Standard with reference to clauses 6.1.1(1) and 6.1.2(2); however, compensating fabric/service measures may be required. See section 6 of this Certificate.
Standard:	6.2	Building insulation envelope
Comment:		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); however, compensating fabric measures may be required. See section 6 of this Certificate.
Standard:	7.1(a)(b)	Statement of sustainability
Comment:		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)**	**Fitness of materials and workmanship**
Comment:	**(iii)(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 3 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 products 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; however, compensating fabric measures may be required. 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; however, compensating fabric/service may be required. 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 Rainscreen Cladding Systems, 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*, 6.9 *Curtain walling and cladding* 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 Rainscreen Cladding Systems to be satisfactory for use as described in this Certificate. The products have been assessed for use as insulation on timber- and steel-frame walls or masonry walls, in new and existing domestic and non-domestic buildings, in conjunction with ventilated rainscreen cladding systems.

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 Rainscreen Cladding Systems 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 ($kg \cdot m^{-3}$)	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:

- rainscreen cladding and subframe
- insulation fasteners/fixings
- sheathing and lining board
- breather membranes
- air and vapour control layer (AVCL).

Applications

The products are intended for use as a thermal insulation in the following applications, in new and existing domestic and non-domestic buildings:

- on timber- and steel-frame walls, in conjunction with ventilated rainscreen cladding systems
- on masonry walls (where masonry includes clay and calcium silicate bricks, concrete blocks, and natural and reconstituted stone blocks), in conjunction with ventilated rainscreen cladding systems.

Product assessment – key factors

The products were 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 ≥ 652 $kg \cdot m^{-3}$ and with a thickness ≥ 9 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	≤ 1 kg·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 MN·s·g^{-1}·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

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 $W \cdot m^{-1} \cdot K^{-1}$
URSAPAN BLACK			0.035 $W \cdot m^{-1} \cdot K^{-1}$

6.2 Conservation of fuel and power

6.2.1 Example U values are given in Tables 6 to 8.

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

U Value ($W \cdot m^{-2} \cdot K^{-1}$)	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	—(6)	—(6)	—(6)	—(6)
0.15	—(6)	—(6)	—(6)	—(6)
0.17	—(6)	—(6)	—(6)	—(6)
0.18	—(6)	—(6)	—(6)	—(6)
0.21	—(6)	—(6)	180	200(5)
0.26	180	200(5)	100	100
0.28	160	200(5)	100	100
0.30	140	160	100	100

(1) Construction, external to internal: 10 mm rainscreen cladding, open fully ventilated 50 mm clear cavity, URSA WALLTEC BLACK / URSAPAN BLACK Rainscreen Slab, breather membrane, 9 mm timber OSB (oriented strand board) sheathing board (λ = 0.13 $W \cdot m^{-1} \cdot K^{-1}$), 140 mm timber frame ($\lambda$ = 0.13 $W \cdot m^{-1} \cdot K^{-1}$)(15% fraction), AVCL, and 15 mm plasterboard (λ = 0.25 $W \cdot m^{-1} \cdot K^{-1}$).
(2) A fixing correction factor (ΔU_f) of 0.1 $W \cdot m^{-2} \cdot K^{-1}$ has been applied, to allow for the thermal bridging of the fixings and rainscreen brackets and fixings.
(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 (λ = 0.035 $W \cdot m^{-1} \cdot K^{-1}$) with a 15% timber-frame fraction.
(5) Achieved by double layering with thicknesses specified in Table 1.
(6) See section 6.2.4.

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

U Value ($W \cdot m^{-2} \cdot K^{-1}$)	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	—(6)	—(6)	—(6)	—(6)
0.15	—(6)	—(6)	—(6)	—(6)
0.17	—(6)	—(6)	—(6)	—(6)
0.18	—(6)	—(6)	—(6)	—(6)
0.21	—(6)	—(6)	220(5)	240(5)
0.26	180	200(5)	140	160
0.28	160	200(5)	120	140
0.30	140	160	100	120

(1) Construction, external to internal: 10 mm rainscreen cladding, open fully ventilated 50 mm clear cavity, URSA WALLTEC BLACK / URSAPAN BLACK Rainscreen Slab, breather membrane, 9 mm timber OSB (oriented strand board) sheathing board (λ = 0.13 $W \cdot m^{-1} \cdot K^{-1}$), 90 mm light steel frame system (0.2% fraction), AVCL and 15 mm plasterboard (λ = 0.25 $W \cdot m^{-1} \cdot K^{-1}$).
(2) A fixing correction factor (ΔU_f) of 0.1 $W \cdot m^{-2} \cdot K^{-1}$ has been applied, to allow for the thermal bridging of the rainscreen brackets and fixings.
(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 (λ = 0.038 $W \cdot m^{-1} \cdot K^{-1}$) with a 0.2% steel frame fraction.
(5) Achieved by double layering with thicknesses specified in Table 1.
(6) See section 6.2.4.

Table 8 Example U Values — masonry rainscreen system[1][2]

U Value ($W \cdot m^{-2} \cdot K^{-1}$)	Insulation thickness (mm)	
	URSA WALLTEC BLACK	URSAPAN BLACK
0.13	—[4]	—[4]
0.15	—[4]	—[4]
0.17	—[4]	—[4]
0.18	—[4]	—[4]
0.21	—[4]	—[4]
0.26	180	200[3]
0.28	160	200[3]
0.30	140	160

(1) Construction, external to internal: 10 mm rainscreen cladding, open fully ventilated 50 mm clear cavity, URSA WALLTEC BLACK / URSAPAN BLACK rainscreen slab, 140 mm dense concrete block (λ = 1.13 $W \cdot m^{-1} \cdot K^{-1}$), 15 mm dot and dab adhesive cavity (20% adhesive bridge) and 15 mm plasterboard (λ = 0.25 $W \cdot m^{-1} \cdot K^{-1}$).

(2) A fixing correction factor (ΔU_f) of 0.1 $W \cdot m^{-2} \cdot K^{-1}$ has been applied, to allow for the thermal bridging of the rainscreen brackets and fixings.

(3) Achieved by double layering with thicknesses specified in Table 1

(4) See section 6.2.4.

6.2.2 The U value of a completed wall will depend on the insulation type and thickness, number and type of fixings, the rainscreen support systems, 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.

6.2.4 For improved energy or carbon savings, designers must consider appropriate fabric/service measures.

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 9.

Table 9 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 they are 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 The wall and sub-frame must be structurally sound, and 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 The wall and sub-frame to which the products are fixed, or which they are installed between, must be structurally sound and constructed in accordance with section 9.1.4. However, when designing the wall for strength, stability and racking, no contribution from the insulation must be assumed.

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

- sheathing or bracing for frame elements. The products must not be relied on to provide any structural contribution, eg racking strength
- fire resistance, for both elements and junctions
- continuity of insulation to minimise thermal bridging
- resistance to the ingress of precipitation and moisture from the ground.

9.1.5 Wind loads must be calculated by a suitably experienced and competent individual in accordance with BS EN 1991-1-4 : 2005 and its UK National Annex. The higher-pressure coefficients applicable to corners of buildings must be used.

9.1.6 Although the products will not be directly exposed to wind, each installation must be designed to withstand, without damage or permanent deformation, the pressures imposed by wind forces. The products will experience substrate movement which must be considered in the structural design of the construction.

9.1.7 The adequacy of fixing to the structural frame or substrate for specific installations is outside the scope of this Certificate and must be verified by a suitably experienced and competent individual. Care is required around window and door openings to ensure that the structure is capable of sustaining the additional weight of reveal/frame details.

9.1.8 External walls must be in good condition and must resist the ingress of rain.

9.1.9 The designer must select a construction appropriate to the local wind-driven rain index to BS EN 1996-2 : 2006 and its UK National Annex, paying due regard to the design detailing, workmanship and materials to be used. It is essential that such walls are designed and constructed to incorporate the normal precautions.

9.1.10 The air gap between the face of the insulation and the back of the rainscreen panels must be of sufficient width to allow any water passing the joints to run down the back of the panels and be discharged externally, without wetting the insulation or the backing wall. The minimum width for air gaps required by the NHBC is:

- 50 mm, for panels with open joints
- 38 mm, for panels with baffled or labyrinth (rebated) joints.

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

9.1.12 Certain rainscreen systems, such as those with open joints, may require the addition of a breather membrane incorporated into their system. The requirement for a membrane is determined by the system designer and is outside the scope of this Certificate.

9.1.13 The product must be kept dry before the cladding is applied.

9.1.14 The construction must be made weathertight as soon as practically possible to ensure maximum protection of the products.

9.1.15 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.

9.1.16 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.

9.1.17 To resist the passage of moisture from the ground, adequate damp-proof courses (DPCs) and membranes must be provided in accordance with conventional good practice.

9.1.18 Cavity barriers must be provided as required by the documents supporting the national Building Regulations.

9.1.19 Weather resistance is provided by an external cladding system (outside the scope of this Certificate).

Interstitial condensation

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

9.1.21 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

9.1.22 In England and Wales, walls will adequately limit the risk of surface condensation adequately where the thermal transmittance (U value) does not exceed 0.7 $W \cdot m^{-2} \cdot K^{-1}$ at any point, and the junctions with other elements are designed in accordance with the guidance referred to in section 9.1.16 of this Certificate.

9.1.23 For buildings in Scotland, wall constructions will be acceptable where the thermal transmittance (U value) of the wall does not exceed 1.2 $W \cdot m^{-2} \cdot K^{-1}$ at any point, and walls are designed and constructed in accordance with the guidance referred to in BS 5250 : 2021. Further guidance may be obtained from BRE Report BR 262 : 2002 and section 9.1.16 of this Certificate.

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 Existing constructions must be in a good state of repair, with no evidence of rain penetration or damp. Defects must be made good prior to installation.

9.2.4 Any mould or fungal growth found to be present must be treated.

9.2.5 Installation must not be carried out until the moisture content of any timber is less than 20% by mass.

9.2.6 The products can be cut using a sharp knife, but care must be taken to prevent damage, particularly to edges.

9.2.7 It is important to ensure a tight fit between slabs. Trimming must be accurate, to achieve close-butted joints and continuity of insulation.

9.2.8 The slabs are fixed against the external face of the sheathing board or against the external face of masonry substrates, in conjunction with a weathertight rainscreen cladding(1), maintaining a cavity to ensure drainage.

(1) Rainscreen cladding systems are proprietary and utilise various mechanisms for attaching rainscreen cladding panels to the wall structure. Site work guidance should be sought from the system manufacturer.

9.2.9 Slabs must be close butted at all vertical and horizontal joints. The horizontal joints of the insulation must be staggered in accordance with good practice.

9.2.10 Fixings must have a minimum head diameter of 70 mm. A typical fixing pattern has three fixings per slab, with one metal fixing at the centre of every slab.

9.2.11 The construction must be made weathertight as soon as is practically possible to ensure maximum protection of the product and the product must be kept dry until the cladding is applied.

9.3 Workmanship

Practicability of installation was assessed, on the basis of the 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 these types of products.

9.4 Maintenance and repair

As the products are confined between the wall and the cladding and have suitable durability, provided the integrity of the cladding 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 handing must be performed in accordance with the Certificate holder's instructions and this Certificate, including:

11.2.1 The slabs 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

Procedure

A.1 The products must be applied with the black glass fleece side facing outwards. Installation may start below DPC level to help insulate the edge of the floor slab. The slabs may be fitted either landscape or portrait format.

A.2 The products must be cut using a sharp knife and tightly fitted around wall brackets where these occur.

A.3 For a typical installation, a breathable membrane is placed between the sheathing board and the products (see Figures 1 and 2). An AVCL is placed between the plasterboard and the frame (see Figures 1 to 3). Designers must, however, choose a suitable construction on a case-by-case basis for a particular installation.

Double layering

A.4 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.5 The first layer of the insulation must be installed using one central mechanical fixing per board, ensuring this fixing does not interfere with the final fixing pattern for the products.

A.6 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 Timber-frame substrate

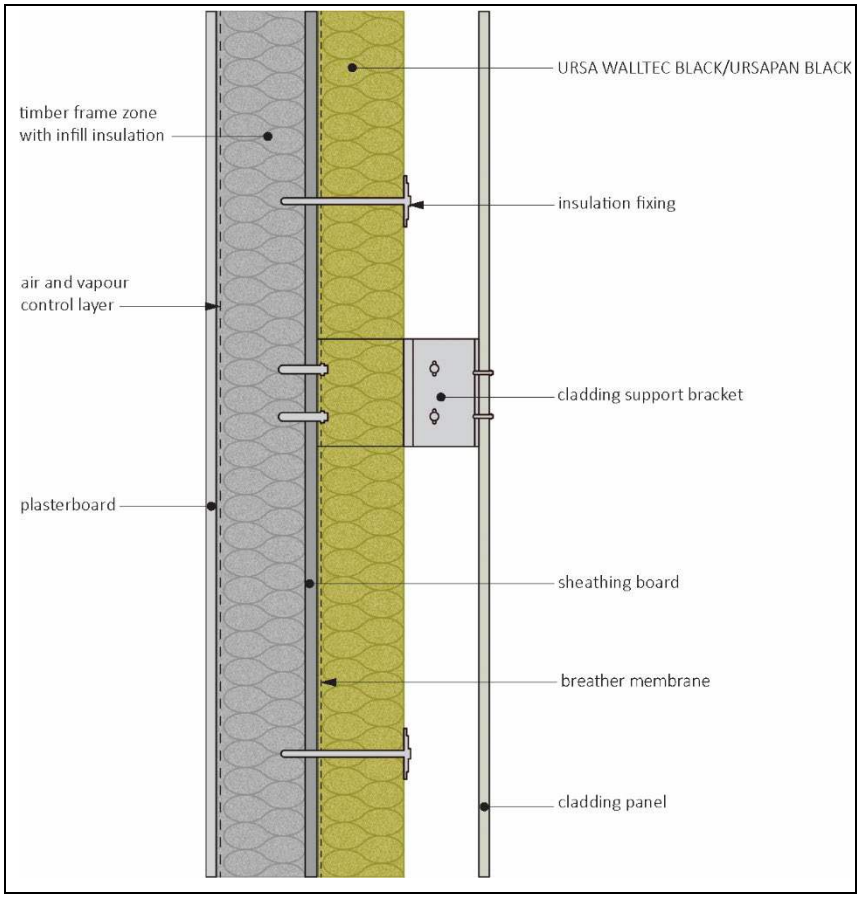


Figure 2 Lightweight steel-frame substrate

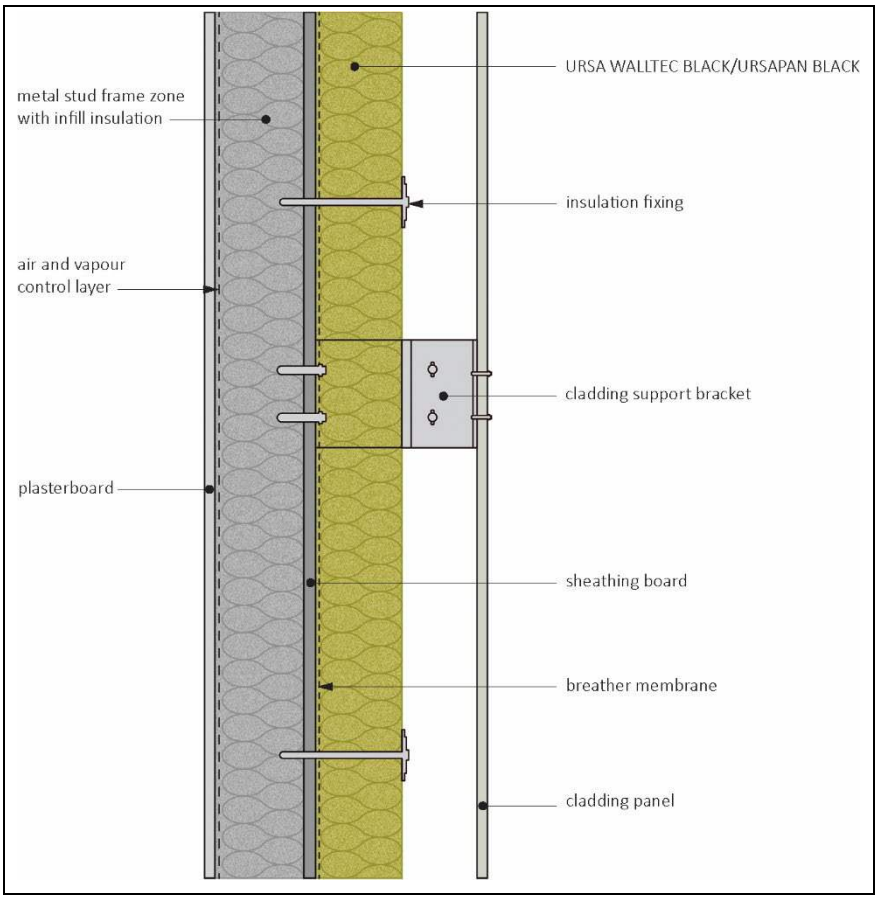
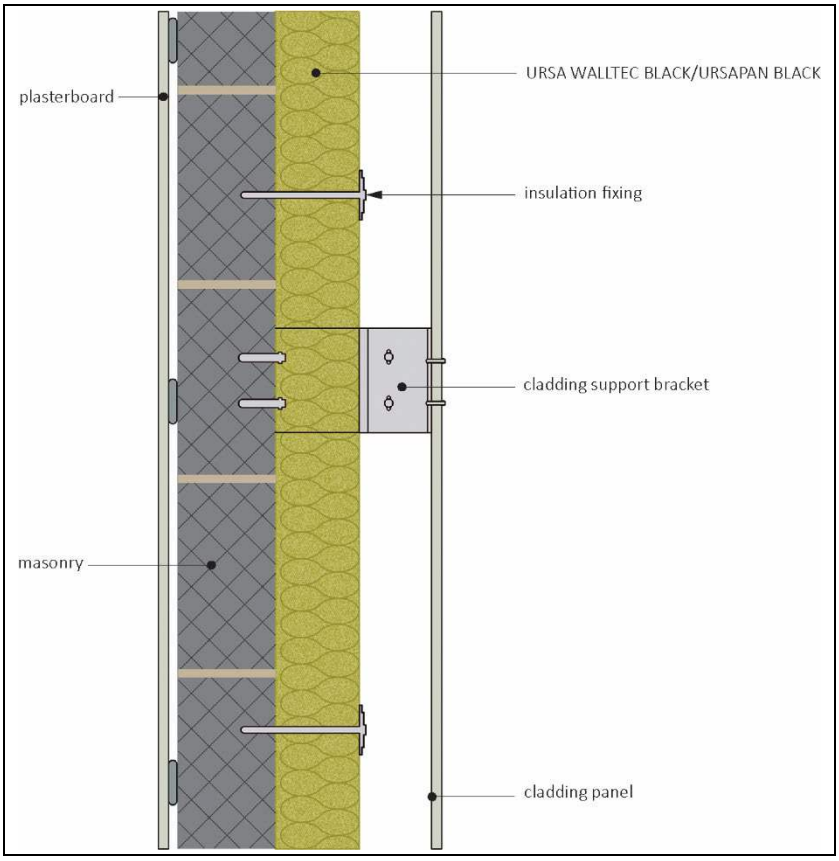


Figure 3 Masonry substrate



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 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 1996-3 : 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*

ISO 9001 : 2015 *Quality management systems — Requirements*

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

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

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

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

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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