



# **Glasroc® X Sheathing Board**

British Board of Agrément Certificate No. 17/5453



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## Agrément Certificate 17/5453 Product Sheet 1 Issue 4

## BRITISH GYPSUM TEMPORARY WEATHER PROTECTION

## **GLASROC X SHEATHING BOARDS**

This Agrément Certificate Product Sheet<sup>(1)</sup> relates to Glasroc X Sheathing Boards, glass fibre-reinforced gypsum fibreboard with a protective coating for use in conjunction with Glasroc X Sealant to seal board joints and Glasroc X Screws. The products are for use on the external face of inner leaf walls of steel-frame constructions as non-loadbearing external sheathing boards, providing up to 6 months temporary weather protection prior to over-cladding with a permanent weatherproof façade.

(1) Hereinafter referred to as 'Certificate'.

## The assessment includes

## Product factors:

- compliance with Building Regulations
- compliance with additional regulatory or nonregulatory 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<sup>†</sup>:

- 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 Fourth issue: 5 December 2024 Originally certified on 15 September 2017

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  $\dagger$  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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BBA 17/5453 PS1 Issue 4

Page 1 of 15

## 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 Glasroc X Sheathing Products, 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 presence of a UK map indicates that the subject is related to the Building Regulations in the region or regions of the UK depicted):

	The Bui	Iding Regulations 2010 (England and Wales) (as amended)
<b>Requirement:</b> Comment:	B3(4)	Internal fire spread (structure) The products can contribute to satisfying this Requirement. See section 2 of this Certificate.
<b>Regulation:</b> Comment:	7(1)	Materials and workmanship The products are acceptable. See sections 8 and 9 of this Certificate.
<b>Regulation:</b> Comment:	7(2)	Materials and workmanship The products are unrestricted by this Regulation. See section 2 of this Certificate.
A COLOR	The Bui	Iding (Scotland) Regulations 2004 (as amended)
Regulation: Comment:	8(1)	Fitness and durability of materials and workmanship The products are acceptable. See sections 8 and 9 and of this Certificate.
<b>Regulation:</b> Comment:	8(3)	Fitness and durability of materials and workmanship The products may be unrestricted by this Regulation. See section 2 of this Certificate.
Regulation: Standard: Standard: Standard: Comment:	9 2.1 2.2 2.3	<b>Building standards – construction</b> Compartmentation Separation Structural protection The product can contribute to satisfying these Standards, with reference to clauses 2.1.1 <sup>(2)</sup> , 2.1.12 <sup>(2)</sup> , 2.2.1 <sup>(1)(2)</sup> , 2.2.4 <sup>(2)</sup> , 2.2.5 <sup>(2)</sup> , 2.2.6 <sup>(1)</sup> , 2.2.7 <sup>(1)</sup> , 2.2.8 <sup>(1)</sup> and 2.3.2 <sup>(1)(2)</sup> . See section 2 of this Certificate.
Standard: Comment:	2.4	Cavities The products can contribute to this Standard, with reference to clause $2.4.2^{(1)(2)}$ . See section 2 of this Certificate.
Standard: Comment:	2.6	Spread to neighbouring buildings The products are unrestricted 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: Comment:	7.1(a)	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.

Regulation: Comment:	12	<b>Building standards – conversion</b> 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 Buil	ding Regulations (Northern Ireland) 2012 (as amended)
Regulation:	23(1)(a)(i)	Fitness of materials and workmanship
Comment:	(iii)(b)(i)	The products are acceptable. See sections 8 and 9 of this Certificate.
Regulation:	23(2)	Fitness of materials and workmanship
Comment:		The products are unrestricted by this Regulation. See section 2 of this Certificate.
<b>Regulation:</b>	35(4)	Internal fire spread – structure
Comment:		The products can contribute to an external wall satisfying the requirements of this
		Regulation. See section 2 of this Certificate.

## **Additional Information**

## NHBC Standards 2024

In the opinion of the BBA, Glasroc X Sheathing Boards, if installed, used and maintained in accordance with this Certificate, can satisfy or contribute to satisfying the relevant requirements in relation to *NHBC Standards*, Part 6 *Superstructure (excluding roofs)*, Chapter 6.10 *Light steel framed walls and floors*, sub-sections 6.10.16 and 6.10.17.

## **Fulfilment of Requirements**

The BBA has judged Glasroc X Sheathing Boards to be satisfactory for use as described in this Certificate. The products have been assessed as non-loadbearing sheathing boards on the external face of inner leaf walls of steel-frame construction providing temporary weather protection up to 6 months prior to over cladding with a permanent weatherproof façade.

## ASSESSMENT

## Product description and intended use

The Certificate holder provided the following description for the products under assessment. The products comprise glass fibre-reinforced gypsum fibreboard faced by hydrophobic-treated glass mat liners, incorporating a protective coating (see Figure 1).

The products have the nominal characteristics given in Table 1.

#### Table 1 Nominal characteristics of Glasroc X Sheathing Boards

Characteristic (unit)	Value/description	
Length (mm)	Up to 3200	
Width (mm)	1200	
Thickness (mm)	12.5, 15	
Mass (kg·m <sup>-2</sup> )	10.9, 13.24	
Apparent density (kg⋅m <sup>-3</sup> )	872, 883	
Edge	Square	
Colour	White (with blue printing on the external face)	
Reinforcement	0.72 mm pre-coated white glass mat on both sides (on front side with blue letters)	



#### Ancillary Items

The following ancillary items are essential to use with the products and have been assessed with the products:

- Glasroc X Screw self-drilling, phosphate-coated carbon steel screws, 25 mm in length and 3.8 mm diameter (with 8 mm head diameter), to one specification, used at maximum 300 mm centres
- Glasroc X Sealant a white silicone sealant used at all horizontal and vertical joints between products and steel framework.

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:

- steel-frame light gauge metal studs at 600 mm maximum centres, fixed vertically to the main structure ٠
- sealer butyl tape or EPDM for use around exposed edges of the products at openings, such as windows and doors cavity barriers.

## **Product assessment – key factors**

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

## **1** Mechanical resistance and stability

Data were assessed for the following characteristics.

#### 1.1 Structural performance

1.1.1 Results of pull-through resistance tests are given in Table 2.

Table 2 Characteristic bull-through resistance (k	Table 2	c pull-throuah resistan	ce (kN
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Product assessed	Assessment Method	Requirement	Result (kN)
12.5 mm Glasroc X Sheathing Products	ETAG 034 : 2012	Value achieved	Centre = 0.473
with 3.8 mm shaft x 8 mm head x 25 mm			Edge = 0.245
long Glasroc X Screws			Corner = 0.176

1.1.2 On the basis of the data assessed, the design pull-through resistance of the products as detailed in Table 2, derived by applying a factor of 3 to the characteristic pull-through values for the centre, edge and corner position, is 0.157 kN, 0.082 kN and 0.059 kN respectively.

1.1.3 The fixings which are described in the *Product description and intended use* section must be determined from the minimum pull-through resistance values.

#### 1.2 Wind loading

1.2.1 Results of ultimate wind load resistance tests are given in Table 3.

Table 3 Ultimate wind load resistance			
Product assessed	Assessment method	Requirement	Result
12.5 mm Glasroc X Sheathing Boards on	ETAG 004 : 2000	Value achieved	2.0 kPa
100 x 50 x 1.2 mm C section vertical steel			
support rails (at 600 mm centres) using			
3.8 mm diameter, self-drilling 8 mm head			
screws at 300 mm centre distances			

1.2.2 On the basis of the data assessed, the design wind load resistance of the products, evaluated by applying a global safety factor of 1.5 to the ultimate wind load resistance in Table 3, is 1.33 kPa.

#### 1.3 <u>Structural performance</u>

1.3.1 Results of flexural strength tests are given in Table 4.

Table 4 Flexural strength			
Product assessed	Assessment method	Requirement	Result
12.5 mm Glasroc X Sheathing Board	BS EN 15283-1 : 2008	16.8t <sup>(1)</sup>	Pass
		(transverse direction)	
		43t <sup>(1)</sup>	Pass
		(longitudinal direction)	

#### (1) Where t is the board thickness

1.3.2 On the basis of the data assessed, the products structural performance must not be less than the values achieved as detailed in Table 4.

#### 1.4 <u>Resistance to impact</u>

1.4.1 The result of impact resistance tests are given in Table 5.

Table 5 Resistance to impact			
Product assessed	Assessment method	Requirement	Result
12.5 mm Glasroc X Sheathing Board on	EAD 090062-00-0404, Annex G,	Use Category <sup>(1)</sup>	Categories
600 mm distance vertical supports	Table G.2		III and IV

(1) Use Categories:

I A zone readily accessible at ground level to the public and vulnerable to hard body impacts but not subjected to abnormally rough use

II A zone liable to impacts from thrown or kicked objects, but in public locations where the height of the kit will limit the size of the impact; or at lower levels where access to the building is primarily to those with some incentive to exercise care

III A zone not likely to be damaged by normal impacts caused by people or by thrown or kicked objects.

IV A zone out of reach from ground level.

1.4.2 On the basis of the data assessed, the products may only be installed in areas of Use Categories III and IV..

## 2 Safety in case of fire

Data were assessed for the following characteristics.

#### 2.1 Reaction to fire

2.1.1 Results of reaction to fire classification tests are given in Table 6.

Table 6 Reaction to fire classification			
Product assessed	Assessment method	Requirement	Result
Glasroc X Sheathing Boards	EN 13501-1 : 2010	Declared Value	A1 <sup>(1)</sup>

(1) Test reports No. PK–16–032 and No. 762-C are available from the Certificate holder on request.

2.1.2 Cavity barriers must be incorporated as required under the national Building Regulations but must not block essential ventilation and drainage pathways. Guidance on fire barriers can be found in BRE Report BR 135 : 2013.

2.1.3 On the basis of data assessed, the products are not subject to any restriction on building height or proximity to relevant boundaries by 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 fire resistance, cavity barriers, service penetrations and combustibility limitations for other materials and components used in the overall wall construction (for example, thermal insulation and cladding).

#### 2.2 Resistance to fire

Where fire resistance is required by the documents supporting the national Building Regulations, the performance of constructions should be confirmed by a suitably experienced and competent individual or by a test from a suitably accredited laboratory.

## 3 Hygiene, health, and the environment

Data were assessed for the following characteristics.

#### 3.1 <u>Resistance to moisture</u>

Results of water impermeability tests are given in Table 7.

Table 7 Water impermeability			
Product assessed	Assessment method	Requirement	Result
Glasroc X Sheathing	BS EN 12467 : 2012	No formation of drops of water on	Pass
Boards 12.5 mm		the under face of the board	

#### 3.2 Water vapour permeability

Results of water vapour permeability tests are given in Table 8.

Table 8 Equivalent air layer thickness (s<sub>d</sub>)

Product assessed	Assessment method	Requirement	Result		
Glasroc X Sheathing	BS EN ISO 12572 : 2001	Declared value	Pass		
Boards 12.5 mm	(Condition C)	(s <sub>d</sub> = 0.23 m)			

#### 3.3 Weathertightness

3.3.1 Results of weathertightness was assessed and the result is given in Table 9.

Table 9 Resistance to wind-driven rain				
Product assessed	Assessment method	Requirement	Result	
Glasroc X Sheathing	BS EN 12865 : 2001	No visible leakage	Pass	
Boards 12.5 mm				

3.3.2 On the basis of the data assessed, provided that the joints between the products and all exposed edges are sealed, and fixings are correctly flush-fitted (ie not overtightened), to a durable and stable frame, the products may be exposed to weather for a period of up to 6 months under normal periods and conditions of wind and rain anticipated in the UK.

3.3.3 The result of a water absorption test was assessed and the result is given in Table 10.

Table 10 Water absorbtion			
Product assessed	Assessment method	Requirement	Result
Glasroc X Sheathing	BS EN 15283-1 : 2008	Absorption rate ≤ 5%	Pass
Boards 12.5 mm		(Type H1)	

## 4 Safety and accessibility in use

Not applicable.

## 5 Protection against noise

Not applicable.

## 6 Energy economy and heat retention

Not applicable.

## 7 Sustainable use of natural resources

Data were assessed for the following characteristics.

#### 7.1 <u>Reuse and recyclability</u>

The products are made from gypsum, which can be recycled. A recycling service is available from the Certificate holder.

## 8 Durability

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

8.2 Specific test data were assessed for the following.

8.2.1 Results of hygrothermal behaviour tests are given in Table 11.

Table 11 Hygrothermal behaviour			
Product assessed	Assessment method	Requirement	Result
Glasroc X Sheathing	ETAG 004 : 2013, clause 5.1.3.2	No cracking, peeling,	Pass
Boards 12.5 mm		detachment or failure	
Joints:			
Glasroc X Sealant			

8.2.2 The products' durability was assessed and the results are shown in Table 12.

Table 12 Durability test	S		
Product assessed	Assessment method	Requirement	Result
Glasroc X Sheathing	Flexural strength to BS EN 15283-1 : 2008	$R_L \ge 0.75$	Pass
Boards 12.5 mm	after 25 soak/dry cycles to BS EN 12467 : 2012		
	Flexural strength to BS EN 15283-1 : 2008	R <sub>L</sub> ≥ 0.75	Pass
	after 50 soak/dry cycles to BS EN 12467 : 2012		
_	Flexural strength to BS EN 15283-1 : 2008	R <sub>L</sub> ≥ 0.75	Pass
	after UV exposure cycles to BS EN 13859-1 : 2010		
	Flexural strength to BS EN BS EN 15283-1 : 2008	$R_L \ge 0.75$	Pass
_	after freeze/thaw cycling to BS EN 12467 : 2012		
	Flexural strength to BS EN 15283-1 : 2008	$R_L \ge 0.75$	Pass
_	after 25 heat/rain cycles to BS EN 12467 : 2012		
	Flexural strength to BS EN 15283-1 : 2008	$R_L \ge 0.75$	Pass
	after 50 heat/rain cycles to BS EN 12467 : 2012		

8.2.3 Results of algal growth tests are given in Table 13.

Product assessedAssessment methodRequirementResultGlasroc X SheathingMOAT 33 : 1986Value achievedAlgal growth rating	Table 13 Resistance to Alg	al growth		
Glasroc X Sheathing MOAT 33 : 1986 Value achieved Algal growth rating	Product assessed	Assessment method	Requirement	Result
	Glasroc X Sheathing	MOAT 33 : 1986	Value achieved	Algal growth rating = $0^{(1)}$
Boards 12.5 mm	3oards 12.5 mm			

(1) Growth rating key: 0 = No growth, 1 = Trace to 1%, 2 = 1% - 10%, 3 = > 10% - 30%, 4 = > 30% - 70%, 5 = > 70%.

8.2.4 On the basis of the data assessed, the products are resistant to algal growth.

8.2.5 Provided all joints between products are sealed and fixings are finished flush to the products (eg not overtightened), the products may be exposed to weather for a period of up to 6 months under normal periods and conditions of wind, rain and heat exposure prior to over cladding.

#### 8.3 Service life

Under normal service conditions, the products will have a service 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 and is not exposed for more than 6 months prior to the permanent cladding being applied.

## **PROCESS ASSESSMENT**

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

## 9 Design, installation, workmanship and maintenance

#### 9.1 <u>Design</u>

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

9.1.2 Design wind actions must be calculated by a suitably experienced and competent individual in accordance with BS EN 1991-1-4 : 2005 and its UK National Annex. Due consideration must be given to higher pressure coefficients applicable to corners of the building as recommended in this Standard (see Annex A.1 of this Certificate).

9.1.3 The adequacy of the steel frame to which the products are fixed is outside the scope of this Certificate and must be verified by a suitably experienced and competent individual. The steel frame must have sufficient strength to resist independently the loads imparted directly by the products and wind actions normally experienced in the UK, as well as any in-plane force effects. It must be designed and constructed in accordance with the requirements of the national Building Regulations and Standards given below. The contribution of the products to the stability of the steel-frame wall is assumed to be negligible: steel-frame walls must be structurally sound, and designed and constructed in accordance with BS EN 1993-1-1 : 2022, BS EN 1993-1-2 : 2024 and BS EN 1993-1-3 : 2024, and their UK National Annexes.

9.1.4 The products are satisfactory for use as non-loadbearing sheathing on steel-framed buildings with vertical steel studs at maximum 600 mm centres and specified fixings at maximum 300 mm centres and provide temporary weather protection during the construction phase.

9.1.5 A suitably experienced and competent individual must check the design and method of installation of the products.

9.1.6 Fixings must be finished flush to the products and not overtightened.

9.1.7 Glasroc X Sealant must be applied to all joints between products during installation, and proprietary sealer applied around exposed edges (such as openings), to ensure protection against water ingress.

9.1.8 The products will provide protection to weather for a period of up to 6 months and must be over-clad within this period with a permanent weatherproof façade. The design, installation and performance of the permanent façade are outside the scope of this Certificate.

9.1.9 Any external finishes/cladding must be such that the cavity behind meets the minimum cavity width required by *NHBC Standards* 2024.

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 Reasonable precautions must be taken to ensure the products are not damaged during installation.

9.2.4 The products must be fixed to a galvanized steel frame with a minimum gauge of 1.2 mm and maximum stud centres of 600 mm (see Figure 2). The adequacy of fixing the galvanized steel studs to the structural frame is outside the scope of this Certificate and must be verified by a suitably experienced and competent individual.

9.2.5 All exposed edges of the products must be sealed in accordance with this Certificate.

9.2.6 The products must be fixed with a 6 mm gap from masonry or similar materials, to prevent moisture absorption.

9.2.7 The lowest point of the products must be kept above the damp-proof course level.



9.2.8 The completed installation must be inspected, and any damaged products and sealant replaced. Particular attention must be made to the integrity of the protective coating, especially within the proximity of the fixings. Where significant damage to the coating has occurred, the affected products must be replaced. This must be repeated immediately prior to over cladding.

#### 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 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 within the wall cavity and have suitable durability, maintenance is not required.

## 10 Manufacture

10.1 The production processes for the products 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.

BBA 17/5453 PS1 Issue 4

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 packaging bearing the product name, the Certificate holder's name, batch number, health and safety information and weight of contents in kilograms.

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 products are supplied on timber pallets, in quantities of 50 per pallet. Each pallet has maximum weight of 1700 kg. The products are printed with Glasroc X diagonally and specific codes that identify the place, date and time of manufacture.

11.2.2 The products must be stored on a firm, flat and level surface. If the products are temporarily stored outside, they must be sufficiently supported off the ground and covered by a securely anchored polythene sheet or tarpaulin to protect them from dampness, weather, contamination and mechanical damage, eg from construction traffic.

11.2.3 Packs of products should be stacked no higher than two pallets from the ground, for safe handling on site. This can be increased to four pallets in warehousing, providing the floor loading is checked and is adequate.

11.2.4 Manual off-loading of the products should be carried out with care to avoid unnecessary strain and injury.

11.2.5 Glasroc X Sealant must be stored in cool, dry conditions between temperatures of 5 and 25°C.

## **ANNEX A – SUPPLEMENTARY INFORMATION †**

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

## <u>Construction (Design and Management) Regulations 2015</u> 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.

## CE marking

The Certificate holder has taken the responsibility of CE marking the products in accordance with harmonised European Standard EN 15283-1 : 2008.

## UKCA marking

The Certificate holder has taken the responsibility of UKCA marking the product in accordance with Designated Standard BS EN 15283-1 : 2008.

## Management Systems Certification for production

The management systems of the manufacturer have been assessed and registered as meeting the requirements of BS EN ISO 9001 : 2015 by TÜV NORD CERT GmbH (Certificate 44 100 065009) and by BSI (Certificate 613170).

## Additional Guidance

A.1 In accordance with BS EN 1990 : 2023 and its UK National Annex, it is recommended that a partial load factor of 1.5 is applied to the calculated wind actions to determine the design wind load to be resisted by the cladding support system (see section 9.1.2 of this Certificate).

## Additional information on installation

A.2 The first board is fixed to the steel sub-frame using the specified screws at maximum 300 mm centres along the vertical studwork, ensuring that the screws are flush-fitted (ie not overtightened) and a minimum of 10mm from the board's edge. The products can be installed in either a horizontal or vertical orientation.

A.3 Once the first board is installed, the edge is checked to make sure it is clean, dry and free from dust, or loose or flaking surface coatings, prior to a continuous bead of Glasroc X Sealant being applied along the full board edge. The next board is butted up, allowing the sealant to squeeze through the joint and ensuring a complete seal between the products, with no gaps. The products are fixed to the sub-frame as described in section 9.2.4.

A.4 Subsequent products are installed in the same manner, with sealant applied to all board edges as the construction progresses.

A.5 Where board edges are exposed to accommodate openings (such as corners, windows and doors), appropriate cold-applied sealing methods, such as butyl tape, should be used to seal the exposed edges.

A.6 The products may be cut using a plasterboard saw or by scoring through the surface glass mat with a board knife. The core is snapped over a straight edge and the products turned over and cut through the back face glass mat.

A.7 When cutting the products, power and hand tools should be used with care and in accordance with the Certificate holder's recommendations. Power tools should only be used by people who have been instructed and trained to use them safely. Appropriate personal protective equipment should be used and monitoring of exposure levels during this activity should be considered.

A.8 It is important to observe appropriate health and safety legislation when working on site. The Certificate holder should be consulted for material safety data sheets and advice. When working in enclosed areas, precautions should be taken to ensure dust levels are controlled in accordance with the current issue of EH40/2005.

## **Bibliography**

BRE Report BR 135 : 2013 Fire performance of external thermal insulation for walls of multistorey buildings

BS EN 1990 : 2023 Eurocode — Basis of structural and geotechnical design NA to BS EN 1990 : 2002 + A1 : 2005 UK National Annex for Eurocode — Basis of structural design

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 1993-1-1 : 2022 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 : 2024 Eurocode 3 — Design of steel structures — Part 1-2: 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 : 2024 Eurocode 3 — Design of steel structures — 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 12467 : 2012 + A2 : 2018 Fibre-cement flat sheets. Product specification and test methods

BS EN 12865 : 2001 Hygrothermal performance of building components and building elements — Determination of the resistance of external wall systems to driving rain under pulsating air pressure

BS EN 13859-1:2010 Flexible sheets for waterproofing. Definitions and characteristics of underlays. Underlays for discontinuous roofing

BS EN 15283-1 : 2008 + A1 : 2009 Gypsum boards with fibrous reinforcement — Definitions, requirements and test methods — Gypsum boards with mat reinforcement

BS EN ISO 9001 : 2015 Quality management systems — Requirements

BS EN ISO 12572 : 2001 Hygrothermal performance of building materials and products — Determination of water vapour transmission properties

EAD 090062-00-0404 : 2018 Kits for external wall claddings mechanically fixed

EH40/2005 Occupational exposure limits

EN 13501-1 : 2010 + A1 : 2009 Fire classification of construction products and building elements — Classification using test data from reaction to fire tests

ETAG 004 : 2000 Guidance for European technical approval of external thermal insulation composite systems (ETICS) with rendering

ETAG 004 : 2013 Guidance for European technical approval of external thermal insulation composite systems (ETICS) with rendering

ETAG 034 : 2012 Guideline for European Technical Approval of Kits for external Wall Claddings Part I : Ventilated cladding kits comprising cladding components and associated fixings

MOAT 33 : 1986 Determination of Anti-algal activity of Building Panels

## 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
- 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
- and any matter arising out of or in connection with it or its subject matter (including non-contractual disputes or claims) is governed by and construed in accordance with the law of England and Wales.
- the courts of England and Wales shall have exclusive jurisdiction to settle any matter arising out of or in connection with this Certificate or its subject matter (including non-contractual disputes or claims).

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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