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Agrément Certificate

15/5255

Product Sheet 3 Issue 1

RESISTANT BUILDING PRODUCTS MAGNESIUM OXIDE BOARDS

MULTI-PRO XS

This Agrément Certificate Product Sheet⁽¹⁾ relates to the Multi-Pro XS, magnesium oxide board, for use as structural or non-structural sheathing board over timber frame external walls and non-structural sheathing board over steel frame external walls, behind a drained and ventilated rain-screen cladding in new and existing domestic and non-domestic buildings above the damp-proof course (DPC) level.

(1) Hereinafter referred to as 'Certificate'.

The assessment includes

Product factors:

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

Process factors:

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

Ongoing contractual Scheme elements†:

- regular assessment of production
- formal 3-yearly review



KEY FACTORS ASSESSED

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

The BBA has awarded this Certificate to the company named above for the product described herein. This product has been assessed by the BBA as being fit for its intended use provided it is installed, used and maintained as set out in this Certificate.

On behalf of the British Board of Agrément

Date of issue: 12 April 2024

Hardy Giesler
Chief Executive Officer

Certificate amended on 20 June 2024 to add T&Cs for Irish Building Regulations.

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 Multi-Pro XS, 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: | A1 | Loading |
| Comment: | | The product can contribute to satisfying this Requirement. See section 1 of this Certificate |
| Requirement: | B3(1) | Internal fire spread – structure |
| Comment: | | The product can contribute to satisfying this Requirement. See section 2 of this Certificate. |
| Requirement: | B3(4) | Internal fire spread – structure |
| Comment: | | The product can contribute to satisfying this Requirement. See section 2 of this Certificate. |
| Regulation: | 7(1) | Materials and workmanship |
| Comment: | | The product is acceptable. See sections 8 and 9 of this Certificate. |
| Regulation: | 7(2) | Materials and workmanship |
| Comment: | | The product may be restricted by this Regulation. See section 2 of this Certificate. |



The Building (Scotland) Regulations 2004 (as amended)

| | | |
|--------------------|-------------|---|
| Regulation: | 8(1) | Fitness and durability of materials and workmanship |
| Comment: | | The use of the product satisfies the requirements of this Regulation. See sections 8 and 9 of this Certificate. |
| Regulation: | 8(3) | Fitness and durability of materials and workmanship |
| Comment: | | The product may be restricted by this Regulation. See section 2 of this Certificate. |
| Regulation: | 9 | Building standards – construction |
| Standard: | 1.1(a)(b) | Structure |
| Comment: | | The product can contribute to satisfying this Standard, with reference to clause 1.1.1 ⁽¹⁾⁽²⁾ of this Standard. See section 1 of this Certificate. |
| Standard: | 2.3 | Structural protection |
| Comment: | | The product can contribute to satisfying these Standards with respect to clauses 2.3.1 ⁽¹⁾⁽²⁾ and 2.3.2 ⁽¹⁾⁽²⁾ . See section 2 of this Certificate. |
| Standard: | 2.4 | Cavities |
| Comment: | | The product can contribute to satisfying this Standard with respect to clause 2.4.2 ⁽¹⁾⁽²⁾ . See section 2 of this Certificate. |
| Standard: | 2.6 | Spread to neighbouring buildings |
| Comment: | | The product can contribute to satisfying this Standard, with reference to clauses 2.6.5 ⁽¹⁾ and 2.6.6 ⁽²⁾ . See section 2 of this Certificate. |

| | | |
|--------------------|---------------|---|
| Standard: | 2.7 | Spread on external walls |
| Comment: | | The product can contribute to satisfying this Standard, with reference to clause 2.7.1 ⁽¹⁾⁽²⁾ . See section 2 of this Certificate. |
| Standard: | 7.1(a) | Statement of sustainability |
| Comment: | | The product can contribute to satisfying the relevant requirements of Regulation 9, Standards 1 to 6, and therefore will contribute to a construction meeting a bronze level of sustainability as defined in this Standard. |
| Regulation: | 12 | Building standards – conversion |
| Comment: | | All comments given for the product 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) | The product is acceptable. See sections 8 and 9 of this Certificate. |
| Regulation: | 23(2) | Fitness of materials and workmanship |
| Comment: | | The product may be restricted by this Regulation. See section 2 of this Certificate. |
| Regulation: | 30 | Stability |
| Comment: | | The product can contribute to satisfying this Regulation. See section 1 of this Certificate. |
| Regulation: | 35(1) | Internal fire spread – Structure |
| Comment: | | The product can contribute to satisfying this Regulation. See section 2 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. |



The Building Regulations (Ireland) 1997 and subsequent revisions

| | | |
|---------------------|-------------------------|--|
| Requirement: | A1 | Loading |
| Comment: | | The product can contribute to satisfying this Requirement. See section 1 of this Certificate. |
| Requirement: | B3(1), B8(1) | Internal fire spread (structure) |
| Comment: | | The product can contribute to satisfying these Requirements. See section 2 of this Certificate. |
| Requirement: | B3(3), B8(3) | Internal fire spread (structure) |
| Comment: | | The product can contribute to satisfying these Requirements. See section 2 of this Certificate. |
| Requirement: | D1 | Materials and workmanship |
| Comment: | | The product can contribute to satisfying this Requirement. See sections 8 and 9 of this Certificate. |

Fulfilment of Requirements

The BBA has judged Multi-Pro XS to be satisfactory for use as described in this Certificate. The product has been assessed as a structural or non-structural sheathing board in weatherproof façade constructions. The product is for use behind a drained and ventilated rain-screen cladding, over timber frame and light gauge steel frame external walls, in new and existing domestic and non-domestic buildings above the damp-proof course (DPC) level.

ASSESSMENT

Product description and intended use

The Certificate holder provided the following description for the product under assessment. Multi-Pro XS consists of a mixture of magnesium oxide, calcium carbonate and magnesium chloride and fibreglass mesh reinforcement. The product has the nominal characteristics given in Table 1.

Table 1 Nominal characteristics of Multi-Pro XS

| Characteristic (unit) | |
|--|------------------------|
| Length (mm) | 2400, 2440, 2700, 3050 |
| Width (mm) | 1200 |
| Thickness (± 0.2 mm) | 6.5, 9, 12 |
| Weight per unit area ($\text{kg}\cdot\text{m}^{-2}$) | 6.8, 9.5, 12.6 |
| Density ($\text{kg}\cdot\text{m}^{-3}$) | 1050 |
| Edge finish | square |
| Fibreglass mesh layers | 4 |

Ancillary items

Ancillary components necessary for installation of the product, and included in the assessment, are:

- board fixings to timber-frame – 4.8 mm by 42 mm self-drilling stainless steel screws (BMDW4842), to BS EN ISO 3506-1 : 2020 at maximum 300 mm centres.

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

- board fixings to timber-frame (when the board is used for racking resistance purposes) – nail fixings, 2.9 mm shaft diameter and 50 mm length, smooth, galvanized steel (AISI 1008) in accordance with ASTM A510. See also section 1.3.1 of this Certificate
- timber frame— The board is fixed to timber frame walls via vertical timber battens, minimum 25 mm deep, C16 soft wood at 600 mm maximum centres, fixed vertically to the main structure
- steel-frame — light gauge metal studs 1.2 mm gauge thickness and 90 x 50 mm — C Section at 600 mm maximum centres, fixed vertically to the main structure
- protective cavity mesh or ventilation mesh
- vapour control layer
- breather membrane
- insulation within the frame or cavity (specified on a project basis)
- cavity barriers
- silicone sealant or joint tape — for sealing board joints (specified on a project basis).

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 and the Republic of Ireland unless otherwise stated.

1 Mechanical resistance and stability

Data were assessed for the following characteristics.

1.1 Mechanical properties

1.1.1 Results of bending strength tests are given in Table 2.

Table 2 Bending strength

| Product assessed | Assessment method | Requirement | Result |
|--|--|--------------------------|--------|
| 9 mm ⁽¹⁾ thick Multi – Pro XS board | Bending strength (MoR) to BS EN 12467 : 2012, Clause 5.4.4 | 18 MPa minimum (Class 4) | Pass |

(9) 12 mm board will achieve a performance at least equal to that of the 9 mm board.

1.1.2 On the basis of the data assessed, the products with thickness of 9 and 12 mm have suitable mechanical properties for the intended use. The bending strength of the 6.5 mm board must be verified.

1.2 Strength and stability

1.2.1 Results of pull-out resistance tests are given in Table 3.

Table 3 Pull-out resistance

| Product assessed | Assessment method | Requirement | Result |
|---|-------------------|----------------|--|
| 4.8 mm x 42 mm Evolution bi-metallic self-drilling screw (code BMDW4842) embedded 30 mm into the centre of the 38 mm x 63 mm C16 timber stud. | BS EN 1383 : 1999 | Value achieved | Mean ⁽¹⁾ = 2217 N Standard deviation = 534 N |

(1) 8 samples tested

1.2.2 On the basis of the data assessed, the design pull-out resistance for the construction detailed in Table 3 is 0.383 kN. The designers must ensure that the fixings have adequate pull-out resistance against the applied actions for the intended timber or steel frame construction.

1.2.3 Pull-through resistance of 4.8 mm x 42 mm Evolution bi-metal self-drilling screws (code BMDW4842) through the boards were assessed using test results for a representative related product.

1.2.4 On the basis of the data assessed, the design pull-through resistances of the 9 mm and 12 mm thick Multi-Pro XS boards are 0.373 kN and 0.530 kN respectively.

1.2.5 The design pull-through resistances of 6.5 mm Multi-Pro XS board must be verified by testing.

1.3 Structural performance

1.3.1 Results of racking strength and stiffness tests are given in Table 4.

Table 4 Mean racking stiffness and mean racking strength

| Product assessed | Assessment method | Requirement | Result | |
|---|-------------------|----------------|--|--------------------------------------|
| | | | Racking stiffness ⁽¹⁾ (N.mm ⁻¹) | Racking strength ⁽¹⁾ (kN) |
| 2400 mm x 2400 mm timber frame panel comprising: | | | | |
| <ul style="list-style-type: none"> 38 mm x 89 mm C16 timber studs at nominally 600 mm centres fixed to single top and bottom timber rails with 2 No. 90 mm long x 2.9 mm nails at top and bottom of stud. | BS EN 594 : 2011 | Value achieved | 592 @ 0 kN load per stud | 9.75 @ 0 kN per stud |
| <ul style="list-style-type: none"> 6.5 mm Multi-Pro XS boards (with 2 mm gap between boards) fixed to face of timber frame with 2.9 x 50 mm nails at 150 mm centres to the perimeter and 300 mm centres to the internal studs. | | | 1103 @ 5 kN load per stud | 15.16 @ 5 kN load per stud |
| 2400 mm x 2400 mm timber frame panel comprising: | | | | |
| <ul style="list-style-type: none"> 38 mm x 89 mm C16 timber studs at nominally 600 mm centres fixed to single top and bottom timber rails with 2 No. 90 mm long x 2.9 mm nails at top and bottom of stud. | BS EN 594 : 2011 | Value achieved | 892.5 @ 0 kN load per stud | 9.03 @ 0 kN per stud |
| <ul style="list-style-type: none"> 9.0 mm Multi-Pro XS boards (with 2 mm gap between boards) fixed to face of timber frame with 2.9 x 50 mm nails at 150 mm centres to the perimeter and 300 mm centres to the internal studs. | | | 1514.9 @ 5 kN load per stud | 13.04 @ 5 kN load per stud |

(1) Mean values

1.3.2 On the basis of the data assessed, the board have characteristic racking strength given in Table 5.

Table 5 Characteristic racking strength from test⁽¹⁾ (kN.m⁻¹)

| | 6.5 mm Multi-Pro XS board ⁽²⁾ | | 9.0 mm Multi-Pro XS board | |
|---|--|------|---------------------------|------|
| Load per stud (kN) | 0 | 5 | 0 | 5 |
| Characteristic racking strength (kN.m ⁻¹) | 2.20 | 3.12 | 3.15 | 4.16 |

(1) Design racking strengths must be calculated by applying the appropriate modification factor k_{mod} and partial factor for material properties γ_m to the characteristic racking strength in accordance with BS EN 1995-1-1 : 2004.

(2) The 12 mm board will achieve a performance at least equal to that of the 9.0 mm board.

1.3.2 On the basis of the data assessed, the board have characteristic racking strength given in Table 5.

2 Safety in case of fire

Data were assessed for the following characteristics.

2.1 Reaction to fire

2.1.1 The product achieved the reaction to fire classification given in Table 6.

Table 6 Reaction to fire classification

| Product | Construction | Method/Report reference | Result |
|---------------------------|--------------|-------------------------|-------------------------|
| 6.5 mm Multi-Pro XS board | – | – | No performance declared |
| 9 mm Multi-Pro XS board | – | EN 13501-1 : 2018 | A1 ⁽¹⁾ |
| 12 mm Multi-Pro XS board | – | BS EN 13501-1 : 2007 | A1 ⁽²⁾ |

(1) Classification report from SGS No. AJFS 2009008055FF. Copies available from the Certificate holder

(2) Classification report No. BRE 300890. Copies available from the Certificate holder

2.1.2 On the basis of data assessed, 9 mm and 12 mm Multi-Pro XS board are not subject to any restriction on building height or proximity to relevant boundaries by the documents supporting the national Building Regulations.

2.1.3 Where required, the reaction to fire of the 6.5 mm Multi-Pro XS board must be verified by testing.

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

2.2.1 Constructions incorporating the boards achieved the periods of fire resistance shown in Tables 7 and 8. Users must refer to the referenced test reports, available from the Certificate holder, for the full construction details.

Table 7 Fire resistance duration – Load bearing constructions

| Duration (minutes) | Loading | Construction | Test method/ Report reference |
|--------------------|---|--|---|
| 90 | 11.54kN/stud (69.24kN total imposed load) | Partition wall comprising (from the unexposed face) one layer 9 mm thick Multi-Pro XS board, 38 mm by 138 mm C16 grade softwood timber studs, 140 mm thick Knauf Ecosone insulation, one layer 9 mm thick Multi-Pro XS board, 45 mm by 45 mm treated vertical timber battens at 600 mm centres and one layer 12.5 mm thick British Gypsum Gyproc fireline plasterboard | BS 476-21 : 1987/ Chilt/RF 11013 ⁽¹⁾ |

(1) Copies available from the Certificate holder

Table 8 Fire resistance duration – Non-load bearing constructions

| Duration (minutes) | Construction (from fire side outwards) | Test method/Report reference |
|--------------------|---|---|
| 68 | One layer of 12 mm Multi-Pro XS board fixed either side of a vertical 70 mm x 36 mm by 1 mm thick galvanized mild steel studs with 6 mm magnesium oxide board strip with a cavity filled with two 30 mm thick Rocksilks Universal Slab RS45 rock mineral wool insulation | BS EN 1364-1 : 1999/ WF 190099 ⁽¹⁾ |
| 76 | One layer of 9 mm Multi-Pro XS board, screw fixed to either side of a timber frame consisting of 38 mm by 89 mm grade C16 softwood timber studs at 400 mm centres, with softwood timber noggins between studs behind horizontal joints between the Multi-Pro XS boards. Cavity filled with one layer of Rockwool 100mm mineral wall insulation. | BS 476-21 : 1987/ WF 378887 ⁽¹⁾ |
| 132 | One layer of 12 mm thick Multi-Pro XS board screw fixed to either side of a timber frame consisting of 60 mm by 48 mm grade C16 softwood timber studs at 600 mm centres, with softwood timber noggins between studs behind horizontal joints between the Multi-Pro XS boards. Cavity filled with two layers of Rocksilks Universal Slab RS45 rock mineral wall insulation | BS EN 1364-1 : 1999/ WF 190098 ⁽¹⁾ |

(1) Copies available from the Certificate holder

2.2.2 Where fire resistance is required by the documents supporting the national Building Regulations, the performance 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 Resistance to moisture

3.1.1 Results of water impermeability tests are given in Table 9.

Table 9 Water impermeability

| Product assessed | Assessment method | Requirement | Result |
|-------------------------------|--|---|--------|
| 9 mm thick Multi-Pro XS board | Water impermeability to BS EN 12467 : 2012, Clause 5.4.5 | No formation of drops of water on the under face of the sheet | Pass |

3.1.2 Results of performance in humid environment tests are given in Table 10.

Table 10 Performance in humid environment

| Product assessed | Assessment method | Requirement | Result |
|--------------------------------|---------------------------|--|--------|
| 9 mm thick Multi -Pro XS board | PAS 670 : 2021, Clause 13 | No liquid droplets must appear on the surface of boards and the strength retained, when comparing the humid tested boards with the control boards, must be greater than or equal to 75%. | Pass |

3.1.3 On the basis of the data assessed, the product has suitable moisture resistance for the intended use.

3.2 Water vapour permeability

3.2.1 Results of water vapour resistance tests are given in Table 11.

Table 11 Water vapour resistance

| Product assessed | Assessment method | Requirement | Result |
|--|--------------------|----------------|--------------------------|
| 9 mm ⁽¹⁾ thick Multi-Pro XS board | BS EN 12086 : 1997 | Value achieved | 3.8 MN.s.g ⁻¹ |

(1) The vapor resistance of the 6.5 and 12 mm boards must be verified by testing.

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

Not applicable.

8 Durability

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

8.2 Specific test data were assessed for the following.

8.2.1 Results of durability tests are given in Table 12.

Table 12 Durability requirements

| Product assessed | Assessment method | Requirement | Result |
|------------------------|---|---|--------|
| 9mm Multi-Pro XS board | Soak-dry to BS EN 12467 : 2012 Clause 7.3.6 (25 cycles) | $R_L \geq 0.75$ | Pass |
| | Freeze-thaw to BS EN 12467 : 2012 Clause 7.4.1 (25 cycles) | $R_L \geq 0.75$ | Pass |
| | Heat-rain to BS EN 12467 : 2012 Clause 7.4.2 (25 cycles) | Any visible cracks, delamination, warping and bowing or other defects in the sheets shall not be of such degree as to affect their performance in use | Pass |

8.2.2 Results of resistance to organic growth tests are given in Table 13.

Table 13 Resistance to organic/mould growth

| Product assessed | Assessment method | Requirement | Result |
|-------------------------------|-------------------------|----------------|--------------------------------------|
| 9 mm thick Multi-Pro XS board | BS EN 60068-2-10 : 2005 | Value achieved | Mould growth level 2a ⁽¹⁾ |

(1) Growth level 2a – sparse growth visible to the naked eye and/or under the microscope scattered or localized to a few places covering altogether not more than 25% of the test surface.

8.2.3 On the basis of data assessed, the products with thicknesses of 9 and 12 mm are suitable for applications where they may be subjected to heat, moisture and occasional frost, eg where they are either protected from or not subjected to severe weathering conditions. The durability of the 6.5 mm board must be verified by testing.

8.3 Service life

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

PROCESS ASSESSMENT

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

9 Design, installation, workmanship and maintenance

9.1 Design

9.1.2 The adequacy of the timber- or steel-frame wall to which the product is fixed is outside the scope of this Certificate and must be verified by a suitably competent and experienced individual. It must have sufficient strength to resist independently the loads imparted directly by the product 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 product to the stability of the timber- or steel-frame wall is assumed to be negligible:

- timber-frame walls must be designed and constructed in accordance with PD 6693-1 : 2019, BS EN 1995-1-1 : 2004 and BS EN 1995-1-2 : 2004 and their UK National Annexes, with workmanship in accordance with BS 8000-5 : 1990, and preservative-treated in accordance with BS EN 351-1 : 2023 and BS 8417 : 2011
- steel-frame walls must be structurally sound, and designed and constructed in accordance with BS EN 1993-1-1 : 2005, BS EN 1993-1-2 : 2005 and BS EN 1993-1-3 : 2006, and their UK National Annexes.

9.1.3 Any external finishes/cladding applied to the boards must be such that the cavity between the cladding and boards satisfies the appropriate minimum cavity width required by *NHBC Standards 2024*.

9.1.4 Where expansion joints occur in the timber- or steel-frame, the boards must not be installed across these joints.

9.1.5 The designer must ensure that the timber- or steel-frame has adequate strength to resist all lateral, and any other, loads on its own and is capable of sustaining the weight of the boards. The adequacy of the timber- or steel-frame is outside the scope of this Certificate and must be verified by a suitably competent and experienced individual.

9.1.6 A suitably competent and experienced individual must check the design and method of installation of the product.

9.1.7 The cladding support brackets and any other applied loads must be fixed back through the boards to the timber- or steel-frame structure. The design must ensure adequate capacity against any actions.

9.1.8 Wall cladding support systems must be fixed through the boards into the structural framing. The over-cladding or façade manufacturer must be consulted for fixing specifications. Any damaged boards must be replaced before fixing the façade.

9.1.9 The product must be used above DPC level and at a minimum of 150mm above external ground level.

9.1.10 External walls must have suitable weather protection on the outside, and a drained and ventilated cavity must be provided between the cladding and boards. The product must be treated as a conventional sheathing board with regard to detailing and damp-proofing at openings, eaves and sole plates, and the fixing of wall ties. Where required by the design, the addition of a breather membrane must be in accordance with BS 5250 : 2021.

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

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.

9.2.3 The level of supervision during installation of Multi-Pro XS boards and the associated structure, must be sufficient to ensure the quality of workmanship.

9.2.4 Framing grade timber studs or galvanized steel framework must be provided at a maximum 600 mm centres. For non-structural sheathing applications on timber- and steel-frame, the boards are installed with screw fixings, while for structural sheathing applications on timber-frame, the boards are only installed with nail fixings (see section 1.3.1). Fixing must start from the centre working outwards to avoid distortion within the board.

9.2.5 The boards are secured to the frame profiles using either screws or nails, depending on whether the frame is a steel or timber. The installation detail are as follows (Figure 1):

- maximum timber/steel stud spacing = 600 mm
- maximum fixings centres (structural sheathing application) = 150 mm to board perimeter and 300 mm to internal studs
- maximum fixings centres (non-structural sheathing application – see figure 1) = 300 mm
- minimum fixings distance from the board edge = 10 mm
- minimum fixings distance from the board corner (both horizontal and vertical) = 20 mm.

9.2.6 The design must ensure adequate capacity of fixings used to attach the board to the support frame against wind suction actions.

9.2.7 When fixing to steel frame butt joints must be used. The screws must not be over-tightened.

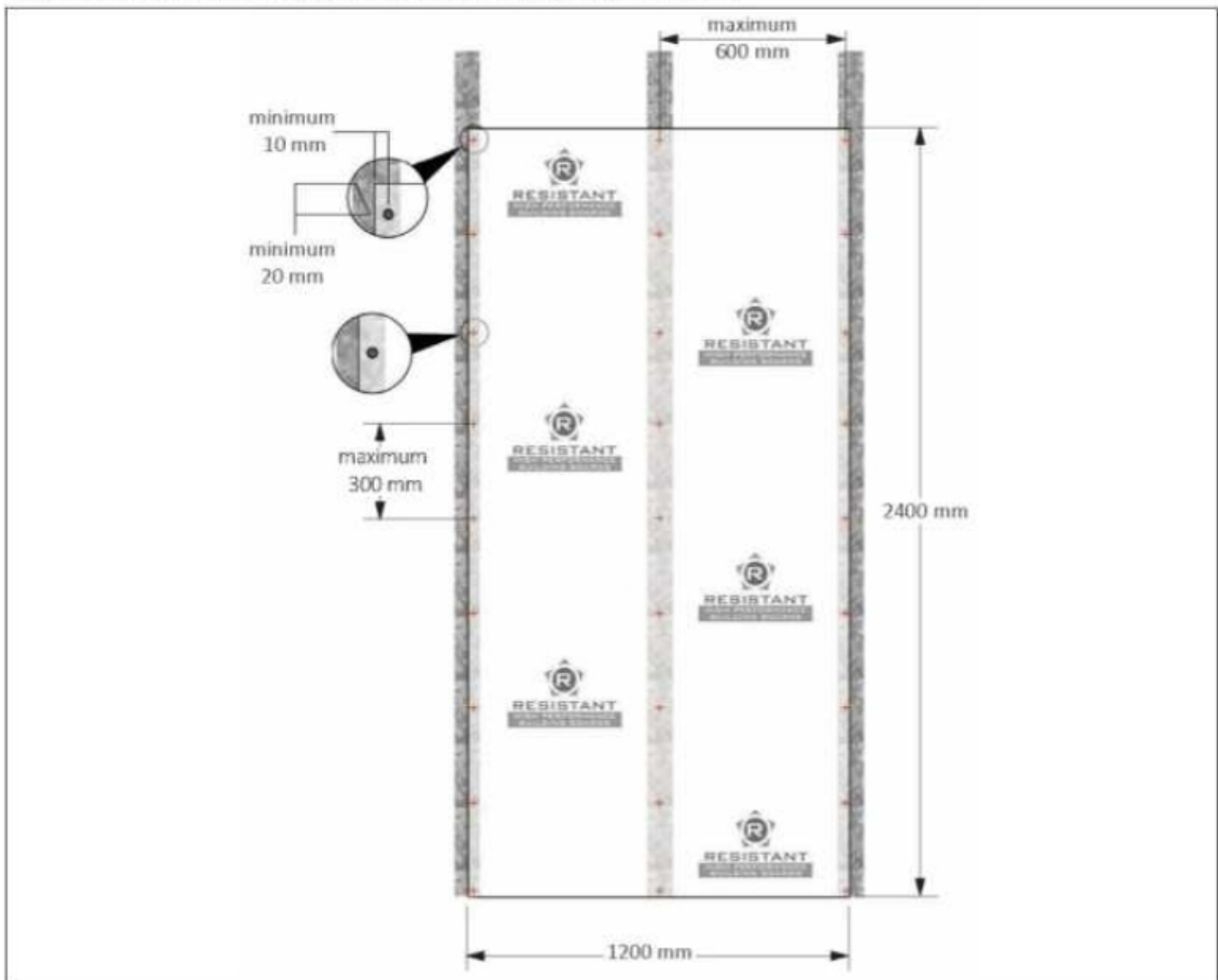
9.2.8 When fixing as an external timber frame structural sheathing board a 2 mm gap must be left between boards as per racking test detailed in section 1.3.1 of this Certificate.

9.2.9 Boards must be installed staggered to avoid four corners meeting at one point. A 6 mm gap must be left between the floor and first board.

9.2.10 Where boards are installed over areas with fixtures and fittings, cut-outs must be carried out before installation.

9.2.11 All board joints must be adequately sealed to ensure protection against water ingress.

Figure 1 Typical Installation detail (non-structural sheathing application)



9.3 Workmanship

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

9.4 Maintenance and repair

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

9.4.2 The following requirements apply in order to satisfy the performance assessed in this Certificate:

9.4.2.1 The product is installed behind a drained and ventilated rain-screen cladding system and once the cladding system is installed the boards are inaccessible and maintenance is not required. However, any damage occurring before enclosure must be repaired.

9.4.2.2 The completed installation must be inspected, and any damaged boards and sealant/joint tape must be replaced as soon as possible.

9.4.2.3 Under normal conditions of use the boards are unlikely to suffer damage, but if damage does occur, the boards must be replaced.

10 Manufacture

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

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

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

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

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

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

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

11 Delivery and site handling

11.1 The Certificate holder stated that the product is delivered to site in packaging bearing product name, thickness, width, length, batch number and number of boards per pallet.

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 boards must be stored horizontally in a ventilated and dry environment on a flat level, raised surface under cover indoors and protected from the weather. The board must not be kept upright for long periods of time.

11.2.2 The boards must always be lifted by at least two people and not dragged across each other to prevent unnecessary scratching or damage. Boards must be carried on edge and extra precaution must be taken to protect the visible front edge and corners.

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

Construction (Design and Management) Regulations 2015

Construction (Design and Management) Regulations (Northern Ireland) 2016

Information in this Certificate may assist the client, designer (including Principal Designer) and contractor (including Principal Contractor) to address their obligations under these Regulations.

Management Systems Certification for production

The management system of the manufacturer has been assessed and registered as meeting the requirements of BS EN ISO 9001 : 2015 by NQA (Certificate 45714).

Additional information on installation

Installation must be in accordance with the Certificate holder's instructions and this Certificate.

A.1 The level of supervision during installation of Multi-Pro XS and the associated structure, must be sufficient to ensure the quality of workmanship.

A.2 The boards can be scored using a utility knife and snapped. Suitable dust control measures must be taken (eg protective safety glasses and respiratory masks) observing all necessary health and safety regulations. The Certificate holder must be consulted for material safety data sheets and advice, but such advice is outside the scope of this Certificate. When working in enclosed areas, precautions must be taken to ensure dust levels are controlled in accordance with the current issue of HSE EH40/2005 and the measures defined in Health and Safety Executive Guidance Note EH44 must be followed.

Bibliography

- BS 5250 : 2021 *Management of moisture in buildings — Code of practice*
- BS 8000-0 : 2014 *Workmanship on construction sites — Introduction and general principles*
BS 8000-5 : 1990 *Workmanship on building sites — Code of practice for carpentry, joinery and general fixings*
- BS 8417 : 2011 + A1 : 2014 *Preservation of wood — 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 594 : 2011 *Timber structures — Test methods — Racking strength and stiffness of timber frame wall panels*
- BS EN 1383 : 1999 *Timber structures — Test methods — Pull-through resistance of timber fasteners*
- 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 : 14 UK National Annex to Eurocode 3 — *Design of steel structures — General rules and rules for buildings*
- BS EN 1993-1-2 : 2005 *Eurocode 3 — Design of steel structures — General rules — Structural fire design*
NA to BS EN 1993-1-2 : 2005 UK National Annex to Eurocode 3 — *Design of steel structures — General rules — Structural fire design*
- BS EN 1993-1-3 : 2006 *Eurocode 3 Design of steel structures — General rules — Supplementary rules for cold-formed members and sheeting*
NA to BS EN 1993-1-3 : 2006 UK National Annex to Eurocode 3 — *Design of steel structures — General rules — Supplementary rules for cold-formed members and sheeting*
- BS EN 1995-1-1 : 2004 + A2 : 2014 *Eurocode 5 — Design of timber structures — General — Common rules and rules for buildings*
NA to BS EN 1995-1-1 : 2004 + A2 : 2014 UK National Annex to Eurocode 5 — *Design of timber structures — General — Common rules and rules for buildings*
- BS EN 1995-1-2 : 2004 *Eurocode 5 — Design of timber structures— General —Structural fire design*
NA to BS EN 1995-1-2 : 2004 UK National Annex to Eurocode 5 — *Design of timber structures — General — Structural fire design*
- BS EN 12086 : 1997 *Thermal insulating products for building applications — Determination of water vapour transmission properties*
- BS EN 12467 : 2012 *Fibre-cement flat sheets — Product specification and test methods*
- BS EN 12664 : 2001 *Thermal performance of building materials and products — Determination of thermal resistance by means of guarded hot plate and heat flow meter methods — Dry and moist products of medium and low thermal resistance*
- BS EN 13501-1 : 2007 + A1 : 2009 *Fire classification of construction products and building elements — Classification using test data from reaction to fire tests*
- BS EN 60068-2-10 : 2005 *Environmental testing-Tests — Test J and guidance — Mould growth.*
- BS EN ISO 3506-1 : 2020 *Fasteners — Mechanical properties of corrosion-resistant stainless steel fasteners — Bolts, screws and studs with specified grades and property classes*
- BS EN ISO 9001 : 2015 *Quality management systems — Requirements*
- EH44 *Dust in the workplace — General principles of protection — 4th edition*
- EN 13501-1 : 2018 *Fire classification of construction products and building elements — Classification using test data from reaction to fire tests*
- HSE EH40/2005 *Workplace exposure limits — containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended)*

ISO 8301 : 1991 *Thermal insulation — Determination of steady-state thermal resistance and related properties — Heat flow meter apparatus*

PAS 670 : 2021 *Magnesium oxide-based boards for use in buildings — Specification*

PD 6693-1 : 2019 *Recommendations for the design of timber structures to Eurocode 5 — Design of timber structures — General — Common rules and rules for building.*

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
- 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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