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**Agrément Certificate**

**15/5255**

Product Sheet 4 Issue 1

### RESISTANT BUILDING PRODUCTS MAGNESIUM OXIDE BOARDS

#### MULTI-REND CLADDING – RENDER FINISH

This Agrément Certificate Product Sheet <sup>(1)</sup> relates to the Multi-Rend Cladding – Render Finish, for use as cladding over timber frame external walls, in new and existing domestic and non-domestic buildings above the damp-proof course (DPC) level. Its use may be restricted in terms of height and proximity to a relevant boundary.

(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.

#### British Board of Agrément

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## SUMMARY OF ASSESSMENT AND COMPLIANCE

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

### Compliance with Regulations

Having assessed the key factors, the opinion of the BBA is that Multi-Rend Cladding – Render Finish, if installed, used, and maintained in accordance with this Certificate, can satisfy or contribute to satisfying the relevant requirements of the following Building Regulations:



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

<b>Requirement:</b>	<b>A1(1)</b>	<b>Loading</b>
<b>Comment:</b>		The product is acceptable as set out in section 1 of this Certificate.
<b>Requirement:</b>	<b>B3(4)</b>	<b>Internal fire spread – structure</b>
<b>Comment:</b>		The product can contribute to satisfying this Requirement. See section 2 of this Certificate.
<b>Requirement:</b>	<b>B4(1)</b>	<b>External fire spread</b>
<b>Comment:</b>		The product may be restricted by this Requirement. See section 2 of this Certificate.
<b>Requirement:</b>	<b>C2(b)</b>	<b>Resistance to moisture</b>
<b>Comment:</b>		The product can contribute to satisfying this Requirement. See section 3 of this Certificate.
<b>Regulation:</b>	<b>7(1)</b>	<b>Materials and workmanship</b>
<b>Comment:</b>		The product is acceptable. See sections 8 and 9 of this Certificate.
<b>Regulation:</b>	<b>7(2)</b>	<b>Materials and workmanship</b>
<b>Comment:</b>		The product is restricted by this Regulation. See section 2 of this Certificate.



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

<b>Regulation:</b>	<b>8(1)(2)</b>	<b>Fitness and durability of materials and workmanship</b>
<b>Comment:</b>		The product can contribute to a construction satisfying this Regulation. See sections 8 and 9 of this Certificate.
<b>Regulation:</b>	<b>8(3)</b>	<b>Fitness and durability of materials and workmanship</b>
<b>Comment:</b>		The product may be unrestricted for this Regulation. See section 2 of this Certificate.
<b>Regulation:</b>	<b>9</b>	<b>Building standards – construction</b>
<b>Standard:</b>	<b>1.1(a)(b)</b>	<b>Structure</b>
<b>Comment:</b>		The product is acceptable, with reference to clauses 1.1.1 <sup>(1)(2)</sup> , 1.1.2 <sup>(1)(2)</sup> and 1.1.3 <sup>(1)(2)</sup> of this Standard. See section 1 of this Certificate.
<b>Standard:</b>	<b>2.4</b>	<b>Cavities</b>
<b>Comment:</b>		The product can contribute to satisfying this Standard, with reference to clause 2.4.2 <sup>(1)(2)</sup> . See section 2 of this Certificate.
<b>Standard:</b>	<b>2.6</b>	<b>Spread to neighbouring buildings</b>
<b>Comment:</b>		The product is restricted by this Standard, with reference to clauses 2.6.4 <sup>(1)(2)</sup> , 2.6.5 <sup>(1)</sup> and 2.6.6 <sup>(2)</sup> . See section 2 of this Certificate.



Standard:	2.7	Spread on external walls
Comment:		The product is restricted by this Standard, with reference to clause 2.7.1 <sup>(1)(2)</sup> . See section 2 of this Certificate.
Standard:	3.10	Precipitation
Comment:		The product can contribute to satisfying this Standard, with reference to clauses 3.10.1 <sup>(1)(2)</sup> , 3.10.5 <sup>(1)(2)</sup> and 3.10.6 <sup>(1)(2)</sup> . See section 3 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	<b>Building standards – conversion</b>
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 <sup>(1)(2)</sup> and Schedule 6 <sup>(1)(2)</sup> .
(1) Technical Handbook (Domestic).		
(2) Technical Handbook (Non-Domestic).		



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

Regulation:	23(a)(i)	<b>Fitness of materials and workmanship</b>
Comment:	(iii)(b)(i)	The product is acceptable. See sections 8 and 9 of this Certificate.
Regulation:	23(2)	<b>Fitness of materials and workmanship</b>
Comment:		The product may be unrestricted for this Regulation. See section 2 of this Certificate.
Regulation:	28(b)	<b>Resistance to moisture and weather</b>
Comment:		The product can contribute to satisfying this Regulation. See section 3 of this Certificate.
Regulation:	30	<b>Stability</b>
Comment:		The product is acceptable. See section 1 of this Certificate.
Regulation:	35(4)	<b>Internal fire spread – structure</b>
Comment:		The product can contribute to satisfying this Regulation. See section 2 of this Certificate.
Regulation:	36(a)	<b>External fire spread</b>
Comment:		The product may be restricted by this Regulation. See section 2 of this Certificate.



### The Building Regulations (Ireland) 1997 and subsequent revisions

Requirement:	A1	<b>Loading</b>
Comment:		The product is acceptable. See section 1 of this Certificate.
Requirement:	B3(3)	<b>Internal fire spread (structure)</b>
Comment:	B8(3)	The product can contribute to satisfying these Requirements. See section 2 of this Certificate.
Requirement:	B4, B9	<b>External fire spread</b>
Comment:		The product may be restricted by these Requirements. See section 2 of this Certificate.
Requirement:	D1	<b>Materials and workmanship</b>
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-Rend Cladding – Render Finish to be satisfactory for use as described in this Certificate. The product has been assessed as a render carrier board with selected render systems, for use as cladding over timber frame external walls, in new and existing domestic and non-domestic buildings above the DPC level. Its use may be restricted in terms of height and proximity to a relevant boundary.

## ASSESSMENT

### Product description and intended use

The Certificate holder provided the following description for the product under assessment. Multi-Rend Cladding – Render Finish (see Figure 1) consists of:

- Multi-Rend render carrier board – manufactured from a mixture of magnesium oxide, calcium carbonate and magnesium chloride and fibreglass mesh reinforcement. The board has the nominal characteristics given in Table 1
- fixings – the render carrier board is fixed to timber frame walls via vertical timber battens at 600 mm maximum centres using 4.8 mm by 42 mm self-drilling stainless steel screws (BMDW4842) at 300 mm centres
- the render systems detailed in Table 2 are applied as finishes to the outside face of the render carrier board.

Figure 1 Multi-Rend with render systems

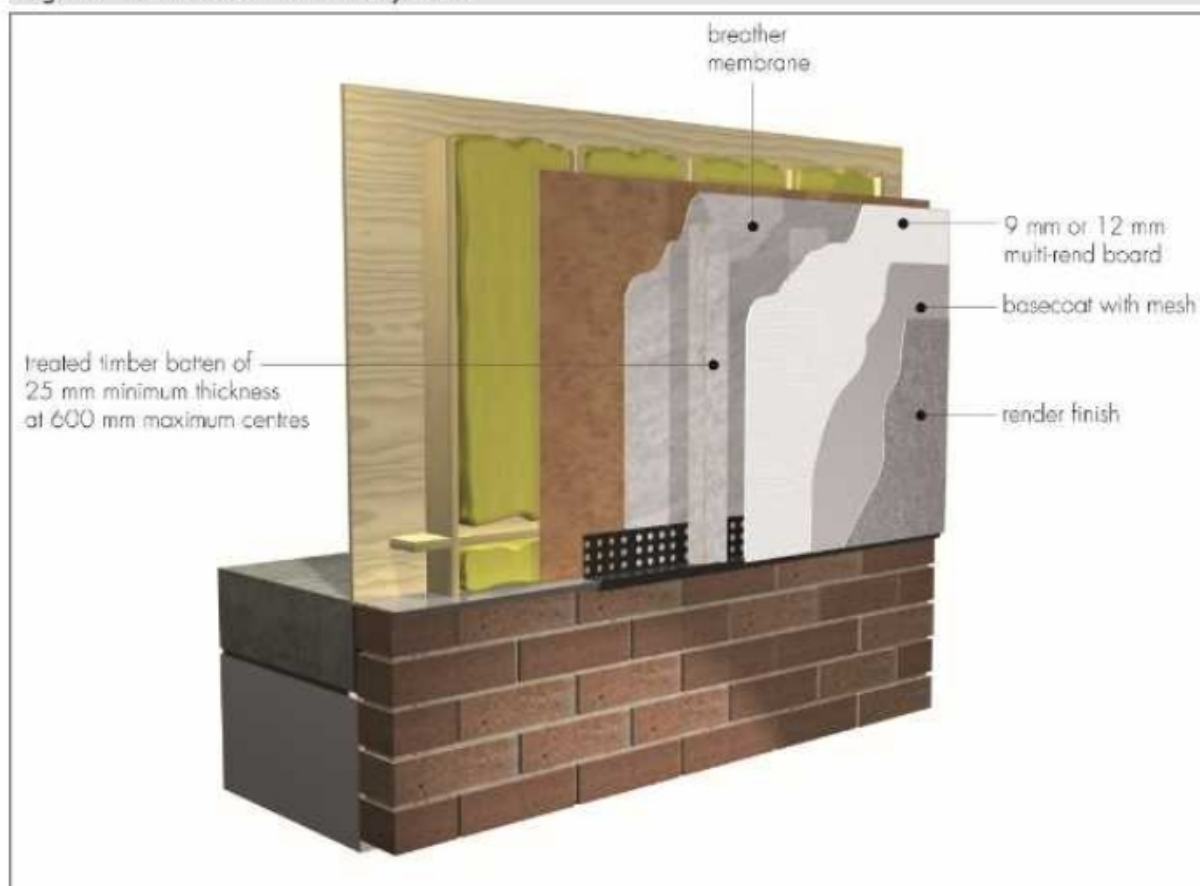


Table 1 Nominal characteristics – Multi-Rend carrier board

Characteristic (unit)	
Thickness ( $\pm 0.2$ mm)	9, 12
Width (mm) x length (mm)	1200 x 2400
Edge finish	square
Fibreglass mesh layers	4
Density ( $\text{kg}\cdot\text{m}^{-3}$ )	1050
Tolerances on length, width, straightness of edges and squareness of edges to BS EN 12467 : 2012 (for 9 mm board)	Level I

**Table 2 Render systems for use with Multi-Rend board**

Component	Render systems	
	Alsecco	K Rend
Basecoat	Alsecco Armatop L-Aero	K Rend HP12 basecoat
Mesh	Alsecco mesh	K Rend alkali-resistant mesh
Primer	Alsecco Primer	K Rend Primer TC003
Render	Alsecco Silicone render	K Rend TC15 Silicone render

#### Ancillary Items

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:

- timber frame substrate wall
- timber battens minimum 25 mm preservative-treated kiln-dried (grade C16)
- DPC membrane for placing over the battens
- stainless steel screws — self-tapping countersunk head for timber stud and self-tapping countersunk head case-hardened carbon steel screw wing
- fixings connecting the timber battens to the substrate wall
- render beads
- expansion joint beads
- silicone sealant
- protective cavity mesh or ventilation mesh
- vapour control layer
- breather membrane
- insulation within the cavity (specified on a project basis)
- cavity barriers.

## 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 Resistance to impact

1.1.1 Results of hard body impact resistance tests are given in Table 3.

**Table 3 Hard body impact**

Product assessed	Assessment method	Requirement	Result
9 mm thick Multi-Rend carrier board, with the two render systems specified in Table 2 (of this Certificate), supported on timber battens at 600 mm centres maximum.	Hard body impact to ETAG 004 : 2013, Clause 5.1.3.3	ETAG 004 : 2013, Clause 6.1.3.3,	Pass

1.1.2 On the basis of data assessed, with respect to hard body impact resistance, the product is suitable for use in Categories I, II and III as defined in ETAG 004 : 2013, Table 8 (reproduced in Table 4 of this Certificate).



**Table 4 Impact Use Categories (reproduced from ETAG 004 : 2013)**

Use Category	Description
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 product 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.

1.1.3 Results of soft body impact-resistance tests are given in Table 5.

**Table 5 Soft body impact**

Product assessed	Assessment method	Requirement	Result
9 mm thick Multi-Rend carrier board, with the two render systems specified in Table 2 (of this Certificate), supported on timber battens at 600 mm centres maximum.	Soft body impact to MOAT 43 : 1987, Clause 3.4.1	MOAT 43 : 1987, Clause 3.3.1.2	Pass

1.1.4 On the basis of data assessed, with respect to soft body impact resistance, the product is suitable for use in exposure classifications E2, E<sup>1</sup><sub>2</sub>, E3, E4 and E5, as defined in MOAT 43 : 1987, Table 3.1 (reproduced in Table 6 of this Certificate).

**Table 6 Classification according to exposure to external impacts (reproduced from MOAT 43 : 1987)**

Category	Description	Examples of components <sup>(1)</sup>
E <sub>2</sub>	Readily accessible to public and others with little incentive to exercise care. Chance of accident occurring and of misuse	Walls adjacent to pedestrian thoroughfares or playing fields, up to 1.5 m above pedestrian level, but not in vandal prone locations
E <sup>1</sup> <sub>2</sub>	Above zone of normal impacts from people but liable to impacts from thrown or kicked objects	1.5 m to 6 m above pedestrian level at location category E <sub>2</sub>
E <sub>3</sub>	Accessible primarily to those with some incentive to exercise care. Some chance of accident occurring or of misuse	Walls adjacent to private open gardens. Back walls of access galleries or balconies, up to 1.5 m above pedestrian level
E <sub>4</sub>	Only accessible, but not near a common route, to those with high incentive to exercise care. Small chance of accident occurring or of misuse	Walls adjacent to small fenced decorative gardens with no through paths
E <sub>5</sub>	Above zone of normal impacts from people and not exposed to impact from thrown or kicked objects	Locations similar to E <sub>2</sub> , but over 6 m above pedestrian level. Locations similar to E <sub>3</sub> and E <sub>4</sub> but over 1.5 m above pedestrian level

(1) The height of 1.5 m corresponds to the region where human impacts with the energies established in Table 2.1 of MOAT 43 are likely to occur in normal buildings.

## 1.2 Mechanical properties

1.2.1 Results of bending strength tests are given in Table 7.

**Table 7 Bending strength**

Product assessed	Assessment method	Requirement	Result
9 mm thick Multi-Rend board <sup>(1)</sup>	Bending strength (MoR) to BS EN 12467 : 2012, Clause 5.4.4	18 MPa minimum (Class 4)	Pass

(1) 9 mm thick board taken as the worst case; 12 mm board will achieve a performance at least equal to this.

## 1.3 Strength and stability

1.3.1 Results of pull-through resistance tests are given in Table 8.

**Table 8 Pull-through resistance**

Product assessed	Assessment method	Requirement	Result
4.8 mm x 42 mm Evolution bi-metallic self-drilling screw (code BMDW4842) on 9 mm Multi-Rend board	BS EN 1383 : 1999	Value achieved	Mean <sup>(1)</sup> = 1371 N Standard deviation = 126
4.8 mm x 42 mm Evolution bi-metallic self-drilling screw (code BMDW4842) on 12 mm Multi-Rend board	BS EN 1383 : 1999	Value achieved	Mean <sup>(1)</sup> = 1795 N Standard deviation = 103

(1) 8 samples tested

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

1.3.3 Results of pull-out resistance tests are given in Table 9.

**Table 9 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 wider face of 38 mm x 63 mm C16 timber stud.	BS EN 1383 : 1999	Value achieved	Mean <sup>(1)</sup> = 2217 N Standard deviation = 534

(1) 8 samples tested

1.3.4 On the basis of the data assessed, the design pull-out resistance is 0.383 kN.

## 1.4 System design

1.4.1 Results of bond strength tests are given in Table 10.

**Table 10 Bond strength**

Product assessed	Assessment method	Requirement	Result
Multi-Rend board finished with K Rend render system	ETAG 004 : 2013 Section 5.1.4.1.1	$\geq 0.08 \text{ N}\cdot\text{mm}^{-2}$	Pass
Multi-Rend board finished with Alsecco render system	ETAG 004 : 2013 Section 5.1.4.1.1	$\geq 0.08 \text{ N}\cdot\text{mm}^{-2}$	Pass

1.4.2 On the basis of the data assessed, the render systems have adequate bond to Multi-Rend carrier board.

## 2 Safety in case of fire

Data were assessed for the following characteristics.

### 2.1 Reaction to fire

2.1.1 The reaction to fire classification of the Multi Rend Board is given in Table 11.

**Table 11 Reaction to fire classification**

Product	Method/Report reference <sup>(1)</sup>	Result
9 mm Multi Rend board	BS EN 13501-1 : 2007	A1

BRE Global, reference number 300890 Issue 1, dated 10 December 2014. The report is available from the Certificate holder.

2.1.2 The classification and permissible areas of use of the boards, with the specified renders applied, must be established by a suitably experienced and competent individual in accordance with the documents supporting the national Building Regulations.

2.1.3 Designers must refer to the relevant national Building Regulation guidance for detailed conditions of use, particularly in respect of requirements for substrate fire performance, service penetrations and combustibility limitations for other materials and components used in the overall wall.

## 2.2 Resistance to fire

Where fire resistance is required by the documents supporting the national Building Regulations, the performance of constructions must 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 Weathertightness

3.1.1 Results of water penetration tests are given in Table 12.

Table 12 Water penetration			
Product assessed	Assessment method	Requirement	Result
9 mm thick Multi-Rend board finished with K Rend render system	BS EN 12865 : 2001	Value achieved	Watertight up to 600 Pa wind pressure.
9 mm thick Multi-Rend board finished with Alsecco render system	BS EN 12865 : 2001	Value achieved	Watertight up to 600 Pa wind pressure.

3.1.2 On the basis of the data assessed, the product has suitable weathertightness for the intended use.

### 3.2 Resistance to moisture

3.2.1 Results of water absorption tests are given in Table 13.

Table 13 Water absorption			
Product assessed	Assessment method	Requirement	Result
9 mm thick Multi-Rend board finished with K Rend render system	ETAG 004 : 2013 Section 5.1.3.1	$\leq 1.0 \text{ kg}\cdot\text{m}^{-2}$	Pass
9 mm thick Multi-Rend board finished with Alsecco render system	ETAG 004 : 2013 Section 5.1.3.1	$\leq 1.0 \text{ kg}\cdot\text{m}^{-2}$	Pass

3.2.2 Results of water impermeability tests are given in Table 14.

Table 14 Water impermeability			
Product assessed	Assessment method	Requirement	Result
9 mm thick Multi - Rend board <sup>(1)</sup>	Water impermeability to BS EN 12467 : 2012	No formation of drops of water on the under face of the sheet	Pass

3.2.3 Results of performance in humid environment tests are given in Table 15.

Table 15 Performance in humid environment tests			
Product assessed	Assessment method	Requirement	Result
9 mm thick Multi-Rend board <sup>(1)</sup>	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

3.2.4 On the basis of the data assessed, the Multi-Rend boards have suitable moisture resistance for the intended use.

## 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 these 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 16.

*Table 16 Hygrothermal behaviour*

Product assessed	Assessment method	Requirement	Result
9 mm Multi-Rend board finished with K Rend render system	ETAG 004 : 2013 Section 5.1.3.2.1	– No blistering or peeling of any finishing coat	Pass
9 mm Multi-Rend board finished with Alsecco render system		– No detachment of the rendering system	
		– No failure or cracking associated with joints between insulation boards	Pass
		– No cracking allowing water penetration to the insulating layer (normally $\leq 0.2$ mm)	

8.2.2 Results of resistance to organic growth tests are given in Table 17.

*Table 17 Resistance to organic/mould growth*

Product assessed	Assessment method	Requirement	Result
9 mm thick Multi Rend board <sup>(1)</sup>	BS EN 60068-2-10 : 2005	Value achieved	Mould growth level 2a <sup>(1)</sup>

(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.

### 8.3 Service life

Under normal service conditions, the product will have a life of at least 30 years, provided it is designed, installed and maintained in accordance with this Certificate and the Certificate holder's instructions.

## PROCESS ASSESSMENT

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

## 9 Design, installation, workmanship and maintenance

### 9.1 Design

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

9.1.2 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 section A.1 of this Certificate).

9.1.3 The adequacy of the substrate wall to which the Multi-rend board is fixed is outside the scope of this Certificate and must be verified by a suitably experienced and competent individual. The substrate wall must have sufficient strength to resist independently the loads imparted directly by the product, wind actions and in-plane force effects. It must be weathertight and reasonably airtight and 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 substrate wall is assumed to be negligible.

9.1.4 Timber-frame walls must be designed and constructed in accordance with BS EN 1995-1-1 : 2004 and BS EN 1995-1-2 : 2004 and their UK National Annexes, and PD 6693-1 : 2019, with workmanship in accordance with BS 8000-0 : 2014 and BS 8000-5 : 1990, and preservative-treated in accordance with BS EN 351-1 : 2023 and BS 8417 : 2011.

9.1.5 The subframe must be able to transmit the loads (self-weight of the product, and wind actions) to the substrate wall. The supporting subframe must have sufficient stiffness, such that its deformation does not affect the performance of the panels. The product does not enhance the structural performance of the wall. The adequacy of the subframe and its fixings to the substrate wall are outside the scope of this Certificate and must be verified by a suitably experienced and competent individual.

9.1.6 The designer must ensure that:

- the design and installation of the sub-frame support system is checked by a suitably competent and experienced individual
- the sub-frame is designed in accordance with the relevant codes and Standards, has adequate resistance to the applied actions and is such as to limit mid-span deflections to span/200 and cantilever deflections to span /150
- the product is fixed to the sub-frame using the specified fixing mechanisms
- the specified fixings of the product to the sub-frame have adequate resistance to the applied actions
- the fixings of the sub-frame to the supporting wall have adequate tensile pull-out strength and corrosion resistance (outside the scope of this Certificate). An appropriate number of site-specific pull-out tests must be conducted on the wall as appropriate to determine the minimum pull-out resistance to failure of the fixings, as well as their characteristic pull-out resistance in accordance with the guidance given in BS EN 1990 : 2023
- care is taken when designing, detailing and installing the product to ensure that moisture does not accumulate within the board.

9.1.7 The design of the product must include:

- a 25 mm minimum ventilated and drained cavity incorporating an insect mesh to all ventilation openings
- effective detailing around window openings to ensure that wind-driven rain is excluded from hidden members in the surround and from the cavity
- an effective breather membrane on the inside, to ensure the frame structure is protected.

9.1.8 Horizontal movement joints in accordance with BS EN 13914-1 : 2016 must be provided at every floor to accommodate vertical shrinkage of up to 6 mm in the timber frame and to follow movement joints in the substructure.

9.1.9 Vertical movement joints in accordance with BS EN 13914-1 : 2016 must be provided at a maximum of 15 m intervals. The actual spacing and position of the joints will be determined by the shape of the area to be rendered and must coincide with movement joints in the structure and allow for the same degree of movement.

9.1.10 Multi-Rend board must be used above the DPC level and a minimum of 150 mm above ground level.

9.1.11 Designers must ensure that an appropriate condensation risk analysis is carried out for all parts of the construction, including openings and penetrations at junctions between the product and windows, to minimise the risk of condensation. The recommendations of BS 5250 : 2021 must be followed.

9.1.12 As the product incorporates a 25 mm clear ventilated and drained cavity between the back of Multi-Rend board and the substrate wall, the risk of interstitial condensation within the product is reduced. Any water collecting in the cavity due to rain or condensation will be removed by drainage and ventilation.

## 9.2 Installation

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

9.2.2 Installation of the product 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 Multi-Render board is fixed to timber frame walls via vertical timber battens at 600 mm maximum centres using 4.8 mm by 42 mm self-drilling stainless steel screws (BMDW4842) at 300 mm centres. A minimum 4 mm gap must be left between and all around the boards.

9.2.4 Boards must be installed with staggered joints at corners and must be installed to create a brick bond effect and avoid four corners meeting at one point.

9.2.5 The screws must be positioned at nominal spacings of 40 mm from the board top edge and 15 mm from side edge, and must not be over-tightened. Fixing should start from the centre, working outwards to avoid distortion within the board.

9.2.6 The following installation procedures for the render systems must be followed:

- prior to the basecoat, a bead of silicone must be applied around all window and door frames or where the render abuts any other building or surface in accordance with the Certificate holder's installation instructions to ensure that they are weathertight
- the basecoat is prepared by thoroughly mixing the contents with the appropriate amount of clean water following the manufacturer's instructions until the correct workability is achieved
- the basecoat is trowelled onto the surface of Multi-Render board to a thickness of between 4 mm and 5 mm ensuring it is butted against details (eg, under window sills), and trowelled smooth. The surface is roughened with a notched trowel
- mesh reinforcement is placed onto the roughened surface of the basecoat, which is then trowelled over to completely cover the mesh. All the rendered surfaces must be reinforced and joints in the mesh must overlap by at least 100 mm
- additional mesh is required around openings and at corners in accordance with the render supplier's installation instructions
- the drying period of any render will depend on weather conditions; however, the basecoat must be left to harden as recommended by the manufacturer before applying the relevant finish
- all window and door openings are sealed in accordance with the Certificate holder's installation instructions to ensure that they are weathertight
- where boards are installed over areas with fixtures and fittings, cut-outs must be carried out before installation.

### 9.3 Workmanship

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

### 9.4 Maintenance and repair

9.4.1 Ongoing satisfactory performance of the Multi-Render board in use requires that it is suitably maintained. The guidance provided by the Certificate holder was assessed by the BBA and found to be appropriate and adequate.

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

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

9.4.3 An initial inspection must be made within 12 months and regularly thereafter to include:

- visual inspection of the render for signs of damage. Cracks in the render exceeding 0.2 mm must be repaired
- examination of the sealant around openings and service entry points
- visual inspection of architectural details designed to shed water to confirm that they are performing properly
- visual inspection to ensure that water is not leaking from external downpipes or gutters; such leakage could penetrate the rendering
- necessary repairs effected immediately and any sealant joints at window and door frames replaced at regular intervals
- maintenance schedules, which must include the replacement and resealing of joints.



9.4.4 Damaged areas must be repaired using appropriate materials and advice must be sought from the Certificate holder.

## **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 the 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 precautions must be taken to protect the visible front edge and corners.

11.2.3 Reasonable precautions must be taken to ensure the boards are not damaged during installation and during application of the render systems. Damaged boards must not be used.

11.3 The delivery specifications for the K Rend render system can be found below.

11.3.1 K Rend HP12 Base is delivered in sealed 25 kg bags on pallets. K Rend TC Primer is delivered in 15 kg tubs and K Rend Silicone TC15 Render in 25 kg tubs on pallets.

11.3.2 K Rend HP12 Base, K Rend TC Primer and K Rend Silicone TC15 Render must be stored in dry conditions, off the ground, in a secure store and protected from frost. Pallets should not be stacked on top of K Rend TC Primer and K Rend Silicone TC 15 Render. To avoid warehouse set caused by compaction, the height of bags stacked on a pallet of K Rend HP12 Base must not exceed 1 m, and no more than four pallets should be stacked. Renders should be used in the order in which they are received, and each delivery kept separate to avoid confusion. When stored unopened, the products have a shelf-life of 12 months from the date of manufacture.

11.3.3 Each bag of K Rend HP 12 Basecoat and each tub of K Rend TC Primer and of K Rend Silicone TC15 Render bears the product and Certificate holder's name, batch number, date of production and the BBA logo incorporating the number of this Certificate.

11.4 The delivery specifications for the Alsecco render systems can be found below.

11.4.1 The powder and paste components must be stored in a safe area, in dry conditions, off the ground, and be protected from excessive heat, moisture and frost. Contaminated materials 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.

### 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 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 product (see section 9.1.2 of this Certificate).

### Additional information on installation

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

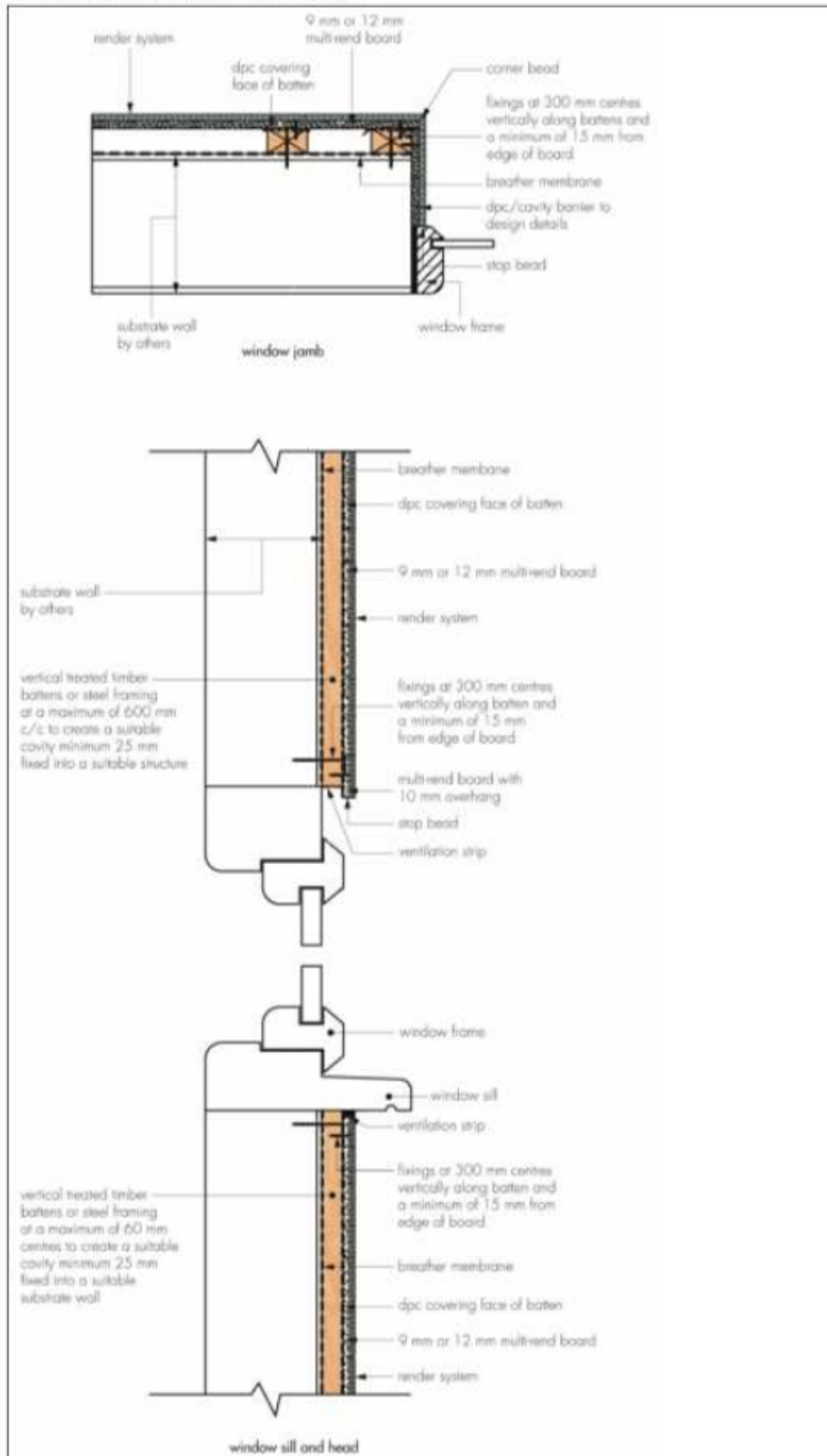
A.2 It is essential that the product is installed and maintained in accordance with the conditions set out in this Certificate. The fixing of rainwater goods, satellite dishes, clothes lines, hanging baskets and similar items is outside the scope of this Certificate. In all cases the Certificate holder's advice must be sought, but such advice is outside the scope of this Certificate.

A.3 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 should be followed.

A.4 The level of supervision during installation of the product must be sufficient to ensure the quality of workmanship.

A.5 Typical installation details around openings are shown in Figure 2.

**Figure 2 Details around openings**





## 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 1383 : 1999 *Timber structures — Test methods — Pull-through resistance of timber fasteners*

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 1995-1-1 : 2004 + A2 : 2014 *Eurocode 5 — Design of timber structures — General — Common rules and rules for buildings*

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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 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 13501-1 : 2007 + A1 : 2009 *Fire classification of construction products and building elements — Classification using test data from reaction to fire tests*

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

BS EN 60068-2-10 : 2005 *Environmental testing-Tests — Test J and guidance — Mould growth.*

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

EH44 *Dust in the workplace — General principles of protection — 4th edition*

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)*

ETAG 004 : 2013 *Guideline for European Technical Approval of External Thermal Insulation Composite Systems with Rendering*

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

MOAT 43 : 1987 *UEAtc directives for impact testing opaque vertical building components*

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

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

## 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.