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Agrément Certificate 17/5428 Product Sheet 1 Issue 2

BUILDING ADHESIVES LTD MAGNESIUM OXIDE BOARDS

BAL BOARD, BAL BOARD AP AND BAL RENDER BOARD

This Agrément Certificate Product Sheet⁽¹⁾ relates to BAL Board, BAL Board AP and BAL Render Board, magnesium oxide boards. BAL Board and BAL Board AP are for use as internal wall sheathing and BAL Render Board as a render carrier board in domestic and non domestic timber-frame buildings.

(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[†]:

- 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 th	e company named above for the products described herein. These
products has been assessed by the BBA as	being fit for their intended use provided they are installed, used and
maintained as set out in this Certificate.	

On behalf of the British Board of Agrément

Date of Second issue: 10 June 2025

Originally certified on 5 June 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 † 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 BAL Board, BAL Board AP and BAL Render Board, if installed, used and maintained in accordance with this Certificate, can satisfy or contribute to satisfying the relevant requirements of the following Building Regulations:

E Contraction	The Buildi	ng Regulations 2010 (England and Wales) (as amended)
Requirement: Comment:	A(1)	Loading The products can contribute to satisfying this Requirement. See section 1 of this Certificate
Requirement: Comment:	B3(1)(2) (3)(a)	Internal fire spread – structure The products can contribute to satisfying this Requirement. See section 2 of this Certificate.
Requirement: Comment:	B3(4)	Internal fire spread – structure The products can contribute to satisfying this Requirement. See section 2 of this Certificate.
Requirement: Comment:	B4(1)	External fire spread The products may be restricted by this Requirement. See section 2 of this Certificate.
Requirement: Comment:	C2(b)	Resistance to moisture The products can contribute to satisfying this Requirement. See section 3 of this Certificate.
Regulation: Comment:	7(1)	Materials and workmanship The products are acceptable. See sections 8 and 9 of this Certificate.
Regulation: Comment:	7(2)	Materials and workmanship The products may be restricted by this Regulation. See section 2 of this Certificate.

E Star	The Building (Scotland) Regulations 2004 (as amended)		
Regulation:	8(1)(2)	Fitness and durability of materials and workmanship	
Comment:		The products can contribute to a construction satisfying this Regulation. See sections	
		8 and 9 of this Certificate.	
Regulation:	8(3)	Fitness and durability of materials and workmanship	
Comment:		The products may be restricted by this Regulation. See section 2 of this Certificate.	
Regulation:	9	Building standards - construction	
Standard:	1.1(a)(b)	Structure	
Comment:		The products are acceptable, with reference to clause $1.1.1^{(1)(2)}$, $1.1.2^{(1)(2)}$ and	
		1.1.3 ⁽¹⁾⁽²⁾ of this Standard. See section 1 of this Certificate.	

Standard: Standard: Standard: Comment:	2.1 2.2 2.3	Compartmentation Separation Structural protection The products can contribute to satisfying these Standards, with reference to clauses $2.1.1^{(2)}$, $2.1.12^{(2)}$, $2.2.1^{(1)(2)}$, $2.2.2^{(2)}$, $2.2.3^{(1)(2)}$, $2.2.4^{(2)}$, $2.2.6^{(1)}$, $2.2.7^{(1)}$, $2.2.10^{(1)}$, $2.3.1^{(2)}$ and $2.3.2^{(1)(2)}$. See section 2 of this Certificate.
Standard: Comment:	2.4	Cavities The products can contribute to satisfying 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 may be restricted by this Standard, with reference to clauses $2.6.4^{(1)(2)}$, $2.6.5^{(1)}$ and $2.6.6^{(2)}$. See section 2 of this Certificate.
Standard: Comment:	2.7	Spread on external walls The products may be restricted by this Standard, with reference to clause $2.7.1^{(1)(2)}$. See section 2 of this Certificate.
Standard: Comment:	3.10	Precipitation The products can contribute to satisfying this Standard, with reference to clauses $3.10.1^{(1)(2)}$, $3.10.5^{(1)(2)}$ and $3.10.6^{(1)(2)}$. See section 3 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	Building standards - conversion All comments given for the products under Regulation 9, Standards 1 to 6, also apply to this Regulation, with reference to clause $0.12.1^{(1)(2)}$ and Schedule $6^{(1)(2)}$.
		 (1) Technical Handbook (Domestic). (2) Technical Handbook (Non-Domestic).

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

	The Buildi	ng Regulations (Northern Ireland) 2012 (as amended)
Regulation: Comment:	23(1)(a)(i) (iii)(b)(i)	Fitness of materials and workmanship The products are acceptable. See sections 8 and 9 of this Certificate.
Regulation: Comment:	23(2)	Fitness of materials and workmanship The products may be restricted by this Regulation. See section 2 of this Certificate.
Regulation: Comment:	28(b)	Resistance to moisture and weather The products can contribute to satisfying this Regulation. See section 3 of this Certificate.
Regulation: Comment:	30	Stability The products can contribute to satisfying this Regulation. See section 1 of this Certificate.
Regulation: Comment:	35(1)(2)(3)	Internal fire spread – structure The products can contribute to satisfying this Regulation. See section 2 of this Certificate
Regulation: Comment:	35(4)	Internal fire spread – structure The products can contribute to satisfying this Regulation. See section 2 of this Certificate.

Fulfilment of Requirements

The BBA has judged BAL Board, BAL Board AP and BAL Render Board to be satisfactory for use as described in this Certificate. The products have been assessed as internal wall sheathing and BAL Render Board as a render carrier board in timber-frame buildings. The boards are used above the damp-proof course (DPC) level, in new and existing domestic and non-domestic buildings.

ASSESSMENT

Product description and intended use

The Certificate holder provided the following description for the products under assessment and consists of:

- BAL Board as passive fire protecting interna wall liner, soffit liner and tile backer board and in applications where impact and fire resistance are required. The boards have the nominal characteristics given in Table 1
- BAL Board AP as a structural sheathing board for racking resistance purposes fixed to timber-frame walls with timber supports at 600 mm maximum centres. The boards have the nominal characteristics given in Table 1
- BAL Render Board as a render carrier board (see Figure 1) in conjunction with the render systems given in Table 2. The board is fixed to timber-frame walls via vertical timber battens at 600 mm maximum centres using 4.8 by 42 mm self-drilling stainless steel screws (BMDW4842) at 300 mm centres. The boards have the nominal characteristics given in Table 1.

Table 1 Nominal characteristics of boards

Characteristic (unit)	BAL Board	BAL Board AP	BAL Render Board	
Thickness (± 0.2 mm)	6, 9, 12 mm	6.5,9,12	9, 12	
Width (± 2 mm)	1200 mm	1200	1200	
Length (± 2 mm)	600, 800, 1220, 2400, 3050	2400, 2440, 2700, 3050	2400	
Edge finish	square	square	square	
Fibreglass mesh layers	2	4	4	
Density (kg⋅m ⁻³)	1050	1050	1050	



Table 2 Render systems for use with BAL Render Board			
Component	Render system		
	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

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:

- timber frame substrate wall
- timber battens
- external render systems other than those specified in Table 2
- render beads
- expansion joint beads
- silicone sealant
- insect mesh
- stainless steel screws self-tapping countersunk head and wood screw for timber stud and self-tapping countersunk head and case-hardened stainless-steel screw

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 Mechanical properties

1.1.1 Results of bending strength tests are given in Table 3

Table 3 Bending strength			
Product assessed	Assessment method	Requirement	Result
9 mm thick BAL Board	Bending strength (MoR) to BS EN 12467 : 2012	7 MPa minimum (Class 2)	Pass
12 mm thick BAL Board	Bending strength (MoR) to BS EN 12467 : 2012	7 MPa minimum (Class 2)	Pass
9 mm ⁽¹⁾ thick BAL Board AP	Bending strength (MoR) to BS EN 12467 : 2012	18 MPa minimum (Class 4)	Pass
9 mm ⁽¹⁾ thick BAL Render Board	Bending strength (MoR) to BS EN 12467 : 2012	18 MPa minimum (Class 4)	Pass

(1) 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 a thickness of 9 and 12 mm have suitable mechanical properties for the intended use. The bending strength of the 6 mm BAL Board and 6.5 mm BAL Board AP must be verified by testing.

1.2 Strength and stability

1.2.1 Results of pull-through resistance tests are given in Table 4.

Table 4 Pull-through resistance

5				
Due du et e e e e e e e	Assessment	Requirement	Res	sult
Product assessed	method		Dry	After water soak
4.8 mm x 42 mm Evolution bi-metallic self-drilling screw (code BMDW4842) on 9 mm BAL Board	- DC EN 1202 - 1000	Value achieved	Mean ⁽¹⁾ = 1266 N sd ⁽³⁾ = 115.2 N	Mean ⁽²⁾ = 958.5 N sd ⁽³⁾ = 162.6 N
4.8 mm x 42 mm Evolution bi-metallic self-drilling screw (code BMDW4842) on 12 mm BAL Board	- R2 EN 1383 : 1999		Mean ⁽¹⁾ = 1968 N sd ⁽³⁾ = 234.5 N	Mean ⁽²⁾ = 1366 N sd ⁽³⁾ = 116 N
4.8 mm x 42 mm Evolution bi-metallic self-drilling screw (code BMDW4842) on 9 mm BAL Render Board	BS EN 1383 : 1999	Value achieved	Mean ⁽¹⁾ = 1371 N Sd ⁽³⁾ = 126	-
4.8 mm x 42 mm Evolution bi-metallic self-drilling screw (code BMDW4842) on 9 mm BAL Render Board	BS EN 1383 : 1999	Value achieved	Mean ⁽¹⁾ = 1371 N Sd ⁽³⁾ = 126	-
(4) For 0 to start and the				

(1) For 8 test results

(2) For 6 test results

(3) Standard deviation

1.2.2 On the basis of the data assessed, the design pull-through resistances of 9 mm BAL Board is 0.345 kN (dry conditions) and 0.211 kN (after water soak).

1.2.3 On the basis of the data assessed, the design pull-through resistances of 12 mm BAL Board is 0.500 kN (dry conditions) and 0.371 kN (after water soak).

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

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

1.2.6 On the basis of the data assessed, the design pull-through resistances of the 9 mm and 12 mm thick BAL Board APs are 0.373 kN and 0.530 kN respectively.

1.2.7 The design pull-through resistances of the 6 mm BAL Board and 6.5 mm BAL Board AP must be verified by testing.

1.2.8 Results of pull-out resistance tests are given in Table 5.

Table 5 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 ⁽¹⁾ = 2217 N sd ⁽²⁾ = 534 N
(1) For 8 test results			

(2) Standard deviation

1.2.9 On the basis of the data assessed, the design pull-out resistance for the construction detailed in Table 5 is 0.383 kN. The designers must ensure that the fixings have adequate pull-out resistance against the applied actions for the intended timber construction.

1.3 <u>Resistance to impact</u>

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1.3.1 Results of hard body impact resistance tests are given in Table 6.

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Product assessed	Assessment method	Requirement	Result
9 mm and 12 mm thick BAL Board,	Hard body impact resistance to	ETAG 004 : 2013,	Pass
supported on timber battens at	ETAG 004 : 2013, Clause 5.1.3.3	Clause 6.1.3.3	
450 mm maximum centres			
9 mm thick Bal Render Board, with	Hard body impact to	ETAG 004 : 2013,	Pass
the two render systems specified in	ETAG 004 : 2013, Clause 5.1.3.3	Clause 6.1.3.3	
Table 2 (of this Certificate),			
supported on timber battens at			
600 mm centres maximum.			

1.3.2 On the basis of data assessed, with respect to hard body impact resistance, the products are suitable for use in Categories I, II and III as defined in ETAG 004 : 2013, Table 8 (reproduced in Table 7 of this Certificate).

Table 7 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 products 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.		
111	A zone not likely to be damaged by normal impacts caused by people or by thrown or kicked objects.		

1.3.3 Results of soft body impact resistance tests are given in Table 8.

Table 8 Soft body impact resistance			
Product assessed	Assessment method	Requirement	Result
9 mm and 12 mm thick BAL Board, supported on timber battens at 450 mm maximum centres.	Soft body impact resistance to ISO 7892 : 1988	Classification as per MOAT 43 : 1987	Categories I_2 and I_3
9 mm thick BAL Render 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

1.3.4 On the basis of data assessed, the BAL Boards with a thickness of 9 and 12 mm will resist the effects of normal impacts expected in service. The impact resistance of the 6 mm BAL and 6.5 mm BAL AP Boards must be verified by testing.

1.3.5 On the basis of data assessed, with respect to soft body impact resistance, the BAL Render Board is suitable for use in exposure classifications E2, E_{2}^{1} , E3, E4 and E5, as defined in MOAT 43 : 1987, Table 3.1 (reproduced in Table 9 of this Certificate).

Category	Description	Examples of components ⁽¹⁾
E ₂	Readily accessible to public and others with little	Walls adjacent to pedestrian thoroughfares or
	incentive to exercise care. Chance of accident	playing fields, up to 1.5 m above pedestrian
	occurring and of misuse	level, but not in vandal prone locations
E ¹ 2	Above zone of normal impacts from people but liable	1.5 m to 6 m above pedestrian level at
	to impacts from thrown or kicked objects	location category E ₂
E ₃	Accessible primarily to those with some incentive to	Walls adjacent to private open gardens. Back
	exercise care. Some chance of accident occurring or of	walls of access galleries or balconies, up to
	misuse	1.5 m above pedestrian level
E4	Only accessible, but not near a common route, to	Walls adjacent to small fenced decorative
	those with high incentive to exercise care. Small chance of accident occurring or of misuse	gardens with no through paths
E ₅	Above zone of normal impacts from people and not	Locations similar to E ₂ , but over 6 m above
	exposed to impact from thrown or kicked objects	pedestrian level. Locations similar to E_3 and E_4
		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.

1.4 Structural performance

1.4.1 Results of racking strength and stiffness tests are given in Table 10.

Table 10 Mean racking stiffness and mean racking strength

Tuble 10 Mean Tacking stighteds and mean Tacking strength					
Product assessed	Assessment	Requirement	Result		
	method		Racking	Racking	
			stiffness ⁽¹⁾	strength ⁽¹⁾	
			(N.mm⁻¹)	(kN)	
2400 mm x 2400 mm timber frame panel					
comprising:					
 38 mm x 89 mm C16 timber studs at 			592 @ 0 kN	975@0kN	
nominally 600 mm centres fixed to single			load per stud	ner stud	
top and bottom timber rails with 2 No.				perstuu	
90 mm long x 2.9 mm nails at top and	BS FN 594 · 2011	Value			
bottom of stud.	50 211 55 1 2011	achieved			
6.5 mm BAL Board AP Boards (with 2 mm					
gap between boards) fixed to face of			1103 @ 5 kN	15.16 @ 5 kN	
timber frame with 2.9 x 50 mm nails at			load per stud	load per stud	
150 mm centres to the perimeter and					
300 mm centres to the internal studs.					
2400 mm x 2400 mm timber frame panel					
comprising:					
• 38 mm x 89 mm C16 timber studs at			892.5 @ 0 kN	9.03 @ 0 kN	
nominally 600 mm centres fixed to single			load per stud	per stud	
top and bottom timber rails with 2 No.			•	•	
90 mm long x 2.9 mm nails at top and	BS EN 594 : 2011	Value			
bottom of stud.		achieved			
• 9.0 mm BAL Board AP Boards (with 2 mm					
gap between boards) fixed to face of			1514.9 @ 5 kN	13.04 @ 5 kN	
timber frame with 2.9 x 50 mm halls at			load per stud	load per stud	
150 mm centres to the perimeter and			-	·	
300 mm centres to the internal studs.					
(1) Iviean values					

1.4.2 On the basis of the data assessed, the BAL Board AP Boards have characteristic racking strength given in Table 11.

Table 11 Cha	racteristic racking	strength	from	test ⁽¹⁾	(kN·m⁻	1
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	6.5 mm B/	AL Board AP ⁽²⁾	9.0 mm BA	L Board AP	
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.

1.4.3 On the basis of the data assessed, the products have characteristic racking strengths given in Table 11.

1.5 System design

1.5.1 Results of bond strength tests are given in Table 12.

Table 12 Bond strength			
Product assessed	Assessment method	Requirement	Result
BAL Render Board finished	ETAG 004 : 2013	$> 0.08 \text{ N} \text{mm}^{-2}$	Bass
with K Rend render system	Section 5.1.4.1.1	<u>2</u> 0.08 N·IIIII	Pass
BAL Rend Board finished	ETAG 004 : 2013	$> 0.08 \text{ N mm}^{-2}$	Bass
with Alsecco render system	Section 5.1.4.1.1	<u>2</u> 0.08 N·IIIII	Pass

1.5.2 On the basis of the data assessed, the render systems have adequate bond to BAL Render Board.

1.5.3 The bond between BAL Board and ceramic tiles was assessed using tests for a representative sample.

1.5.4 On the basis of the data assessed, BAL Boards have suitable mechanical properties for the intended use. The adequacy of the bond strength of a specific construction must be verified by testing in accordance with EAD 040083-00-0404 : 2019 by a suitably accredited laboratory.

2 Safety in case of fire

2.1 Reaction to fire

2.1.1 The products achieved the reaction to fire classification given in Table 13.

Table 13 Reaction to fire classification	า		
Product	Construction	Method	Result
6 mm BAL Board	_	-	No performance declared
9 mm BAL Board	-	EN 13501-1 : 2018	A1
12 mm BAL Board	_	BS EN 13501-1 : 2007	A1
6.5 mm BAL Board AP	_	-	No performance declared
9 mm BAL Board AP	_	EN 13501-1 : 2018	A1
12 mm BAL Board AP	-	BS EN 13501-1 : 2007	A1
9 mm BAL Render Board	_	BS EN 13501-1 : 2007	A1

2.1.2 On the basis of data assessed, the 9 mm and 12 mm BAL Boards, BAL Board AP are not subject to any restriction relating to reaction to fire by the documents supporting the national Building Regulations.

2.1.3 Where required, the reaction to fire of the 6 mm BAL Board and 6.5 mm BAL Board AP, must be verified by testing.

2.1.4 The classification and permissible areas of use of the BAL Render Board, 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.

2.1.5 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 BAL Board AP achieved the periods of fire resistance shown in Tables 14 and 15. Users must refer to the Certificate holder, for the full construction details.

Table 14 Fir	re resistance aurat	ion – Load bearing constructions	
Duration (minutes)	Loading	Construction	Test method
90	11.54kN/stud (69.24kN total imposed load)	Partition wall comprising (from the unexposed face) one layer 9 mm thick BAL Board AP, 38 mm by 138 mm C16 grade softwood timber studs, 140 mm thick Knauf Ecose insulation, one layer 9 mm thick BAL Board AP, 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
Table 15 Fir	re resistance durat	ion – Non-load bearing constructions	
Duration (minutes)		Construction (from fire side outwards)	Test method
68	One layer of 1 70 mm x 36 m magnesium ox Rocksilk	2 mm BAL Board AP Board fixed either side of a vertical m by 1 mm thick galvanized mild steel studs with 6 mm ide board strip with a cavity filled with two 30 mm thick universal Slab RS45 rock mineral wool insulation	BS EN 1364-1 : 1999
76	One layer of 9 frame consisting 400 mm centre horizontal joints layer	mm BAL Board AP, screw fixed to either side of a timber g of 38 mm by 89 mm grade C16 softwood timber studs at es, with softwood timber noggins between studs behind between the BAL Board AP Boards. Cavity filled with one r of Rockwool 100 mm mineral wall insulation.	BS 476-21 : 1987
132	One layer of 1 timber frame co studs at 600 m behind horizon with two la	2 mm thick BAL Board AP screw fixed to either side of a onsisting of 60 mm by 48 mm grade C16 softwood timber m centres, with softwood timber noggins between studs tal joints between the BAL Board AP Boards. Cavity filled yers of Rocksilk Universal Slab RS45 rock mineral wall insulation	BS EN 1364-1 : 1999

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

3.1.1 Results of water impermeability tests are given in Table 16.

Table 16 Water impermeability			
Product assessed	Assessment method	Requirement	Result
9 mm thick BAL Board	Water impermeability to	No formation of drops of water	Pass
	BS EN 12467 : 2012,	on the under face of the sheet	
	Clause 5.4.5		
9 mm thick BAL Board AP	Water impermeability to	No formation of drops of water	Pass
	BS EN 12467 : 2012,	on the under face of the sheet	
	Clause 5.4.5		
9 mm thick BAL Render Board	Water impermeability to	No formation of drops of water	Pass
	BS EN 12467 : 2012,	on the under face of the sheet	
	Clause 5.4.5		

3.1.2 Results of performance in humid environment tests are given in Table 17.

Table 17 Performance in humid environment				
Product assessed	Assessment method	Requirement	Result	
9 mm thick BAL	PAS 670 : 2021,	No liquid droplets on the surface of the boards, and	Pass	
Board	Clause 13	when comparing the boards tested under humid		
		conditions with the control, the retained strength		
		must be at least 75% or higher.		
9 mm thick BAL	PAS 670 : 2021,	No liquid droplets on the surface of the boards, and	Pass	
Board AP	Clause 13	when comparing the boards tested under humid		
		conditions with the control, the retained strength		
		must be at least 75% or higher.		
9 mm thick BAL	PAS 670 : 2021,	No liquid droplets on the surface of the boards, and	Pass	
Render Board	Clause 13	when comparing the boards tested under humid		
		conditions with the control, the retained strength		
		must be at least 75% or higher.		

3.1.3 Results of water penetration tests are given in Table 18.

Table 18 Water penetration					
Product assessed	Assessment method	Requirement	Result		
9 mm thick BAL Render Board	DC EN 1296E + 2001	Value achieved	Watertight up to 600 Pa		
finished with K Rend render system	B3 EN 12803 : 2001	value achieveu	wind pressure.		
9 mm thick BAL Render Board	DC EN 12965 - 2001	Value achieved	Watertight up to 600 Pa		
finished with Alsecco render system	D3 EN 12805 . 2001	value achieveu	wind pressure.		

3.1.4 Results of water absorption tests are given in Table 19.

Table 19 Water absorption			
Product assessed	Assessment method	Requirement	Result
9 mm thick BAL Render Board finished	ETAG 004 : 2013	$< 1.0 \text{ kg} \text{m}^{-2}$ Pass	
with K Rend render system	Section 5.1.3.1		
9 mm thick BAL Render Board finished	ETAG 004 : 2013	$< 1.0 \ kg \ m^{-2}$	Dace
with Alsecco render system	Section 5.1.3.1	≥ 1.0 kg·m -	rd55

3.1.5 Results of water vapour resistance tests are given in Table 20.

Table 20 Water vapour resistance				
Product assessed	Assessment method	Requirement	Result	
9 mm ⁽¹⁾ thick BAL Board AP	BS EN 12086 : 1997	Value achieved	3.8 MN.s.g ⁻¹	

(1) The vapor resistance of the other boards must be verified by testing.

3.1.6 On the basis of the data assessed, the BAL Render Board has suitable weathertightness for the intended use.

3.1.7 On the basis of the data assessed, the products 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 durability tests are given in Table 21.

Table 21 Durability			
Product assessed	Assessment method	Requirement	Result
9 mm BAL Board	Soak-dry to	R _L ≥ 0.75	Pass
	BS EN 12467 : 2012		
	Clause 7.3.6 (25 cycles)		
	Freeze-thaw to	R _L ≥ 0.75	Pass
	BS EN 12467 : 2012		
	Clause 7.4.1 (25 cycles)		
	Heat-rain to	Any visible cracks, delamination, warping	Pass
	BS EN 12467 : 2012	and bowing or other defects in the sheets	
	Clause 7.4.2 (25 cycles)	must not be of such degree as to affect their	
_		performance in use	
9 mm BAL Board AP	Soak-dry to	R _L ≥ 0.75	Pass
	BS EN 12467 : 2012		
_	Clause 7.3.6 (25 cycles)		
	Freeze-thaw to	R _L ≥ 0.75	Pass
	BS EN 12467 : 2012		
	Clause 7.4.1 (25 cycles)		
	Heat-rain to	Any visible cracks, delamination, warping	Pass
	BS EN 12467 : 2012	and bowing or other defects in the sheets	
	Clause 7.4.2 (25 cycles)	shall not be of such degree as to affect their	
		performance in use	

8.2.2 Results of resistance to organic growth tests are given in Table 22.

Table 22 Resistance to organic/mould growth				
Product assessed	Assessment method	Requirement	Result	
9 mm thick BAL Board	BS EN 60068-2-10 : 2005	Value achieved	Mould growth level $2a^{(1)}$	
9 mm thick BAL Board AP	BS EN 60068-2-10 : 2005	Value achieved	Mould growth level $2a^{(1)}$	
9 mm BAL Render 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 Results of hygrothermal behaviour tests are given in Table 23.

Table 23 Hygrothermal behaviour				
Product assessed	Assessment		Requirement	Result
	method			
9 mm BAL Render Board		_	No blistering or peeling of any finishing coat	
finished with K Rend render		_	No detachment of the rendering system	Pass
system	ETAG 004 : 2013	_	No failure or cracking associated with joints	
9 mm BAL Render Board	Section 5.1.3.2.1		between insulation boards	
finished with Alsecco render		-	No cracking allowing water penetration to	Pass
system			the insulating layer (normally \leq 0.2 mm)	

8.2.4 On the basis of data assessed, the BAL Boards and BAL Board APs 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 mm BAL Board and 6.5 mm BAL Board AP must be verified by testing.

8.3 Service life

8.3.1 Under normal service conditions, the BAL Board and BAL Board AP will have a life of 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.

8.3.2 Under normal service conditions, the BAL Render Board 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 <u>Design</u>

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

9.1.2 The 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 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 products do 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.

9.1.4 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 products are fixed to the sub-frame using the specified fixing mechanisms
- the specified fixings of the products 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 products to ensure that moisture does not accumulate within the board.

9.1.5 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* 2025.

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

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

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

9.1.9 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.

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

9.1.11 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 sheathing boards 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.

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

9.1.13 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.

9.1.14 The adequacy of the substrate wall to which the BAL Render 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 products to the stability of the substrate wall is assumed to be negligible.

9.1.15 The design of the BAL Render Board 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.

9.1.17 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.

9.1.18 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.

9.1.19 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 products and windows, to minimise the risk of condensation. The recommendations of BS 5250 : 2021 must be followed.

9.1.20 As the BAL Render Board incorporates a 25 mm clear ventilated and drained cavity between the back of the BAL Render Board and the substrate wall, the risk of interstitial condensation within the products is reduced. Any water collecting in the cavity due to rain or condensation will be removed by drainage and ventilation.

9.1.21 The BAL Boards are suitable materials for bonding ceramic tiles. However, the actual bond achieved between tile adhesive to BAL Boards is dependent on the specific tile and adhesive used. The tensile bond strength of ceramic tiles with BAL Board must be determined on site using trial tests. A minimum of five specimens must be bonded to the wall and allowed to cure for 28 days. The specimens must then be pulled off the wall using suitable calibrated equipment to determine the bond strength. The bond strength between the adhesive and the substrate wall must comply with the requirements of BS EN 12004-1 : 2017 and BS EN 12004-2 : 2017.

9.1.22 The suitability of any specific installation, including the supporting wall, to support a particular tile loading must be assessed by a suitably experienced and competent individual.

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.

9.2.3 The level of supervision during installation of the BAL Boards and BAL Board APs and the associated structure, must be sufficient to ensure the quality of workmanship.

9.2.4 The BAL Board and BAL Board AP is secured to either timber or steel stud work using stainless steel screws, depending on whether the frame is a steel or timber.

9.2.5 Framing grade timber studs or galvanized steel framework must be provided at a maximum 600 mm centres. Care must be taken to ensure that studs are straight and properly aligned.

9.2.6 Fixing must start from the centre, working outwards towards the edges to avoid distortion within the board.

9.2.7 The installation detail is as follows :

- maximum timber/steel stud spacing = 600 mm
- maximum fixings centres = 300 mm
- minimum fixings distance from the board edge = 15 mm
- minimum fixings distance from the board corner (both horizontal and vertical) = 20 mm.

9.2.8 When fixing to steel frame and on internal walls butt joints must be used. The screws must not be overtightened.

9.2.9 BAL Boards and BAL Board APs 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 BAL Boards and BAL Board APs are installed over areas with fixtures and fittings, cut-outs must be carried out before installation.

9.2.11 Studding and framing must be adequately supported by noggins to ensure rigidity.

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

9.2.13 The BAL 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.

9.2.14 BAL Render 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.

9.2.15 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 must start from the centre, working outwards to avoid distortion within the board.

9.2.16 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 BAL 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.

9.2.17 BAL Boards must be attached onto vertical studs in a symmetrical fashion. They must be attached horizontally on the subframe, with fixings at 300 mm maximum centres vertically and 600 mm maximum centres horizontally (Figure 2). All fixings must be made directly into studs or into a nogging fixed firmly between the studs.

9.2.18 BAL Boards must be sealed on the tile-receiving face and all edges, with an acrylic primer.

9.3 Workmanship

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

9.4 Maintenance and repair

9.4.1 Ongoing satisfactory performance of the produts in use requires that they are 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 to the BAL Board and BAL Board APs in order to satisfy the performance assessed in this Certificate:

9.4.2.1 The BAL Board and BAL Board APs once installed 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.

9.4.3 The following requirements apply to the BAL Render Board in order to satisfy the performance assessed in this Certificate:

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

9.4.3.2 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.

9.4.3.3 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 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.

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, thickness, width, length, batch number and number of boards per pallet.

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 boards must be stored horizontally in a ventilated and dry environment on a flat level, raised surface under cover indoors or protected from the weather. The boards 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.

11.2.3 Reasonable precautions must be taken to ensure the boards are not damaged during installation. Damaged boards must not be used.

†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.

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 products (see section 9 of this Certificate).

Additional information on installation

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

A.2 The level of supervision during installation of the products and the associated structure, must be sufficient to ensure the quality of workmanship.

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 must be followed.

A.4 It is essential that the products are 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.5 Typical installation details around openings are shown in Figure 2.



Bibliography

BS 476-21 : 1987 Fire tests on building materials and structures — Methods for determination of the fire resistance of loadbearing elements of construction

BS 5250 : 2021 Management of moisture in buildings — Code of practice

BS 8417 : 2011 + A1 : 2014 Preservation of wood — 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 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 1364-1 : 1999 Fire resistance tests for non-loadbearing elements — Walls

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

BS EN 1993-1-1 : 2005 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

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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 12004-1 : 2017 Adhesives for ceramic tiles — Requirements, assessment and verification of constancy of performance, classification and marking BS EN 12004-2 : 2017 Adhesives for ceramic tiles — Test methods

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 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 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

EAD 040083-00-0404 : 2019 External Thermal Insulation Composite Systems (ETICS) with Renderings

EH44 Dust in the workplace — General principles of protection — 4^{th} edition

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

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

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 7892 : 1988 Vertical building elements — Impact resistance tests — Impact bodies and general test procedures

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

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

1 This Certificate:

- relates only to the product that is named and described on the front page
- is issued only to the company, firm, organisation or person named on the front page no other company, firm, organisation or person may hold or claim that this Certificate has been issued to them
- is valid only within the UK
- has to be read, considered and used as a whole document it may be misleading and will be incomplete to be selective
- is copyright of the BBA
- 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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