Kiwa Ltd.
Unit 5 Prime Park Way
Prime Enterprise Park
Derby
DE1 3QB
+44 (0)1332 383333
uk.bpenquiries@kiwa.com
www.kiwa.co.uk/bda

BAW-24-344-P-A-UK
BDA Agrément®
CladColour HD Façade Panel
Flat Sheet Façade Panel

Benx Ltd.
Lonsdale Chambers
Lonsdale Street
Stoke-on-Trent
ST4 4BT
+44 (0)845 130 0982
technicalservices@benx.co.uk
www.benx.co.uk

SCOPE OF AGRÉMENT

This BDA Agrément® (hereinafter 'Agrément') relates to CladColour HD Façade Panel (hereinafter the 'Product'). The Product is a non-loadbearing, through-coloured, calcium silicate fibre-cement panel, designed to be mechanically fixed above the damp-proof course (hereinafter 'DPC') level on light gauge steel frame (hereinafter 'LGSF'), structural timber frame (hereinafter 'STF') or masonry external walls. The Product is for existing and new residential and commercial buildings.

DESCRIPTION

The Product consists of Portland cement, quartz, lime, calcium silicate and other additives, manufactured in accordance with BS EN 12467. The Product is finished with three decorative adhesion coating combinations (natural, solid and effects), available in a range of colours.

ILLUSTRATION

THIRD-PARTY ACCEPTANCE

None requested by the Agrément holder.

STATEMENT

It is the opinion of Kiwa Ltd. that the Product is safe and fit for its intended use, provided it is specified, installed and used in accordance with this Agrément.

Craig Devine
Operations Manager, Building Products

Alpheo Mlotha CEng FIMMM MBA
Business Unit Manager, Building Products

SUMMARY OF AGRÉMENT

This document provides independent information to specifiers, specialists, engineers, building control personnel, contractors, installers and other construction industry professionals who are considering the safety and fitness for purpose of the Product. This Agrément covers the following:

- Conditions of use;
- Production Control, Quality Management System and the Annual Verification Procedure;
- Product components and ancillary items, points of attention for the Specifier and examples of details;
- Installation;
- Independently assessed Product characteristics and other information;
- Compliance with national Building Regulations, other regulatory requirements and Third-Party Acceptance, as appropriate;
- Sources.

MAJOR POINTS OF ASSESSMENT

Moisture control - see Section 2.2.7 - the Product has adequate resistance to moisture.

Strength - see Section 2.2.8 - the Product can be incorporated into a building which is subject to typical wind and impact actions encountered in the UK and Ireland.

Fire performance - see Section 2.2.9 - the Product is classified as European Classification A1, in accordance with BS EN 13501-1.

Durability - see Section 2.2.10 - the service life durability of the Product will be dependent upon the environment (operating conditions) in which the Product will be used.

UKCA, UKNI and CE marking - see Section 2.2.11 - the Agrément holder has responsibility for conformity marking, in accordance with all relevant British and European Product Standards.

CONTENTS

1 GENERAL CONSIDERATIONS

1.1 CONDITIONS OF USE

1.1.1 Limitations

This Agrément has been prepared in accordance with the mandatory requirements defined in the relevant Kiwa Technical Requirement. Some information in this Agrément is provided for guidance or reference purposes only; this information falls outside the scope of the Technical Requirement.

1.1.2 Application

The assessment of the Product relates to its use in accordance with this Agrément and the Agrément holder's requirements.

1.1.3 Assessment

Kiwa Ltd. has assessed the Product in combination with relevant test reports, technical literature, the Agrément holder's quality plan, DoPs and site visit, as appropriate.

1.1.4 Installation supervision

The quality of installation and workmanship shall be controlled by a competent person who shall be an employee of the installation company (hereinafter 'Installer').

The Product shall be installed strictly in accordance with the instructions of the Agrément holder and the requirements of this Agrément.

1.1.5 Geographical scope

The validity of this document is limited to England, Wales, Scotland, Northern Ireland and Ireland, with due regard to Section 3 of this Agrément (CDM, national Building Regulations and Third-Party Acceptance).

1.1.6 Validity

The purpose of this Agrément is to provide well-founded confidence to apply the Product within the scope described. The validity of this Agrément is as published on www.kiwa.co.uk/bda.

1.2 PRODUCTION CONTROL AND QUALITY MANAGEMENT SYSTEM

Kiwa Ltd. has conducted an audit of the Agrément holder and determined that they fulfil all their obligations in relation to this Agrément in respect of the Product.

The initial audit demonstrated that the Agrément holder has a satisfactory Quality Management System (QMS) and is committed to continuously improving their quality plan. Document control and record-keeping procedures were deemed satisfactory. A detailed Production Quality Specification (PQS) has been compiled to ensure traceability and compliance under the terms of this Agrément.

1.3 ANNUAL VERIFICATION PROCEDURE - CONTINUOUS SURVEILLANCE

To demonstrate that the Product conforms with the requirements of the technical specification described in this Agrément, an Annual Verification Procedure has been agreed with the Agrément holder in respect of continuous surveillance and assessment, and auditing of the Agrément holder's QMS.

2 TECHNICAL ASSESSMENT

This Agrément does not constitute a design guide for the Product. It is intended only as an assessment of safety and fitness for purpose.

2.1 PRODUCT COMPONENTS AND ANCILLARY ITEMS

2.1.1 Components included within the scope of this Agrément

The components listed in Table 1 below are integral to the use of the Product.

Table 1 - Integral components

Product	Description	Dimensions
CladColour HD	through coloured calcium silicate fibre-cement board, comprising Portland cement, lime, quartz, calcium silicate, mica and other additives, with a combination of adhesion coatings on the outer face, in a range of colours; Category A and Class 3 in accordance with BS EN 12467; mean density 1,590 kg/m^3	9 or 12 mm thick 1,200 or 1,220 mm wide 2,400, 2,440 mm or 3,050 mm long
mechanical fixings^ for façade panel	Mainline SAL5/5.0. rivet manufactured from AlMg5 Aluminium body and A2 (304 grade) stainless steel mandrel	5.0 mm diameter by 18 mm long, 16 mm head diameter
	Mainline SSSS/48-- rivet manufactured from A2 stainless steel body and mandrel	4.8 mm diameter by 18 mm long, 16 mm head diameter

^ alternative fixings may be used provided it can be demonstrated that they have equivalent (or greater) pull-through and pull-out strength, plate diameter, plate stiffness and load resistance characteristics

2.1.2 Ancillary items falling outside the scope of this Agrément

The following ancillary items detailed in this Section may be used in conjunction with the Product, but fall outside the scope of this Agrément:

- subframe with either timber battens, aluminium Z-profiles, top-hat profiles, or aluminium / stainless steel subframe system;
- supporting wall;
- sheathing board;
- breather membrane;
- insulation;
- mechanical fixings for insulation;
- profiles - including corners, horizontal/vertical joints and top-hats;
- perforated closures;
- tapes and EPDM.

2.2 POINTS OF ATTENTION TO THE SPECIFIER

2.2.1 Design

2.2.1.1 Design responsibility

A Specifier may undertake a project-specific design, in which case it is recommended that the Specifier co-operates closely with the Agrément holder. The Specifier or Installer is responsible for the final as-built design.

2.2.1.2 Basis of design

The characteristics detailed in the section titled 'Major Points of Assessment' shall be considered during the use of the Product.

2.2.1.3 General design considerations

A project-specific design is required and shall give due consideration to the Product with the specified subframe system (falls outside the scope of this Agrément). This shall be developed in close co-operation with the Agrément holder.

The Product shall be installed above DPC level and a minimum of 150 mm above ground level.

The drained and ventilated cavity between the supporting wall and the back of the Product shall be a minimum width of 25 mm. Any water collecting in the cavity owing to rainwater or condensation shall be removed by drainage and ventilation.

The properties of the subframe shall be taken into account when deciding which mechanical fixings shall be used with the Product. The pull-out and pull-through loads of the fixings shall be sufficient to withstand the design loads appropriate to each construction.

Supporting walls shall be:

- structurally sound, designed and constructed in accordance with the requirements of the relevant national Building Regulations and Standards;
- detailed to reduce the risk of damage due to movement in the supporting wall, taking into consideration differential movement in dissimilar materials;
- designed in accordance with the relevant Standards to limit mid-span deflections - see Section 2.2.8.

STF supporting walls shall be designed in accordance with BS EN 1995-1-1 / I.S. EN 1995-1-1, BS EN 14081-1 and I.S. 440 as appropriate; the timber structure shall not be less than 37 mm thick and a minimum width of 72 mm.

LGSF supporting walls shall be designed in accordance with BS EN 1993-1-1 / I.S. EN 1993-1-1 and BS EN 1993-1-3 / I.S. EN 1993-1-3; the steel structures shall not be less than 1.2 mm thick with a minimum of 50 mm flanges.

Masonry supporting walls shall be designed in accordance with BS EN 1992-1-1 / I.S. EN 1992-1-1, BS EN 1996-1-1 / I.S. EN 1996-1-1, BS EN 1996-2 / I.S. EN 1996-2 and PD 6697.

2.2.1.4 Project-specific design considerations

The project-specific design shall:

- be determined by the Specifier;
- take into account the requirements of the relevant national Building Regulations - see Section 3.2;
- take into account the service life durability required - see Section 2.2.10.

A pre-installation survey is required to allow determination of the project-specific design - see Section 2.4.1.

The Specifier shall ensure that the following considerations are included in the development of a project-specific design:

- structural adequacy of the supporting wall;
- thermal transmittance (hereinafter 'U-value') requirements;
- thermal expansion effects of the supporting wall into which the Product is incorporated;
- likely local impact resistance;
- pull-through of fixings;
- pull-out of fixings;
- effect of wind actions on the Product and supporting wall.

During the assessment and survey, fixing pull-out strength (kN) tests shall be conducted on the supporting wall surface, in accordance with EOTA TR 051. The results of the assessment and survey assist the Agrément holder and the Specifier in determining the type, size and minimum number of fixings required. When using pull-out data for fixings, the material safety factor γ_m shall be considered.

2.2.2 Applied building physics (heat, air, moisture)

A Specialist shall check the hygrothermal behaviour of a project-specific design incorporating the Product and, if necessary, offer advice on improvements to achieve the final specification. The Specialist can be either a qualified employee of the Agrément holder or a suitably qualified consultant (in which case it is recommended that the Specialist co-operates closely with the Agrément holder).

2.2.3 Permitted applications

Only applications designed according to the specifications given in this Agrément are permitted. In each case, the Specifier and Installer shall co-operate closely with the Agrément holder.

2.2.4 Installer competence level

The Product shall be installed strictly in accordance with the instructions of the Agrément holder and the requirements of this Agrément.

Installation shall be by an Approved Installer, trained and approved by the Agrément holder.

2.2.5 Delivery, storage and site handling

The Product is delivered in suitable packaging bearing relevant identification information (such as the Product name, production identification date or batch number, the Agrément holder's name, etc.) and, where applicable, the BDA Agrément® logo incorporating the number of this Agrément.

Prior to installation, the Product shall be stored in accordance with the Agrément holder's requirements. Good housekeeping protocols shall be followed to avoid damage.

Where required, particular care shall be taken to:

- avoid exposure to direct sunlight for extended periods of time;
- avoid exposure to high or low temperatures for extended periods of time;
- avoid breakage by ensuring adequate support along the Product's full length;
- store on pallets (off the ground) in a well-ventilated covered area for protection against rain, frost and humidity;
- store away from possible ignition sources;
- avoid staining from mud or other site works;
- ensure the Product is not damaged during handling and storage.

2.2.6 Maintenance and repair

Once installed, the Product does not require regular maintenance. For advice in respect of repair, consult the Agrément holder.

It is, however, best practice to complete an annual inspection of the façade to ensure the integrity of the ventilation gaps, fixings and joints, and action any required maintenance to prolong overall life expectancy.

For coastal locations with generally more aggressive salt-laden moist air and wind-driven sand, more frequent inspections and general maintenance may be required, with particular attention to corners, around doors and windows, and façade corner details, especially when they face the direction of prevailing winds.

Under normal conditions, cleaning will not be required as rain will periodically wash away dust, environmental dirt, etc. In cases where cleaning is required, panels shall be cleaned once per year with mild, pH-neutral detergent in lukewarm water and lightly power wash with clean water. To maintain appearance and finish, do not use alkaline or aggressive cleaning agents, solvents, agents containing abrasives or scrubbing tools.

Remove algae and fungi with a 5 % solution of hydrogen peroxide (H_2O_2) to eliminate all spores.

Performance factors in relation to the Major Points of Assessment

2.2.7 Moisture control

The Product has adequate resistance to artificial weathering and thermal shock in accordance with BS EN ISO 16474-3 and BS EN 12467, respectively - see Section 2.5.1.

The Product meets the requirements of Category A with regards to water impermeability, when tested in accordance with BS EN 12467.

External walls shall:

- be adequately weathertight prior to the installation of the Product;
- be adequately ventilated or vented, as required by the external façade design.

A condensation risk analysis shall be completed at project-specific design stage, in accordance with BS 5250 and BRE Report 262, for all elements of the construction, including at junctions, openings and penetrations to minimise the risk of surface and interstitial condensation.

2.2.8 Strength

The Product meets the requirements for Category A, Class 3 calcium silicate fibre-cement boards, in accordance with BS EN 12467 - see Section 2.5.2.

The supporting wall shall have sufficient strength to withstand all wind and dead loads applied to and from the Product, including any temporary loads that could be applied during installation. The strength of the supporting wall shall be verified by a suitably qualified engineer.

Wind loads shall be calculated in accordance with BS EN 1991-1-1 / I.S. EN 1991-1-1 and BS EN 1991-1-4 / I.S. EN 1991-1-4. Account shall be taken of the location, shape and size of the building. The average yearly wind-load action data for the site location shall be collated and used to calculate the required design wind resistance (positive and negative) of a given support spacing, fixing pattern and sizes of vertical rails and brackets. Special consideration shall be given to locations with high wind-load pressure coefficients, as extra fixings may be required.

The supporting wall shall be designed in accordance with the relevant Standards to limit mid-span deflections to L/200 (mid-span) and L/150 (cantilever).

The Product is incorporated in a complete façade system tested for wind-load resistance, in accordance with EAD 090062-00-0404, showing adequate wind-load resistance and mechanical strength - see Section 2.5.2.

The characteristic values of the Product's fixing's pull-through resistance are included in Section 2.5.2.

Impact resistance

When the Product was tested as part of a complete façade system for hard- and soft-body impact resistance, in accordance with EAD 090062-01-0404, the Product is categorised as Use Category II-b - see Section 2.5.2.

The Use Categories in accordance with EAD 090062-01-0404 are:

- I - a zone readily exposed to impacts but not subjected to abnormally rough use;
- II-a - a zone liable to impacts from thrown or kicked objects, but not subject to abnormally rough use, where the height of the Product will limit the size of the impact; or at lower levels where access to the façade is primarily to those with some incentive to exercise care;
- II-b - a zone liable to impacts from thrown or kicked objects, but not subject to abnormally rough use, either where the height of the Product will limit the size of the impact; or at lower levels where the area surroundings of the Product will limit the size of the impact or access to the façade is controlled and under surveillance;
- III - a zone not likely to be damaged by normal impacts caused by people or by thrown or kicked objects;
- IV - a zone out of reach from ground level.

2.2.9 Fire performance

The Product is classified as European Classification A1, in accordance with BS EN 13501-1.

The Product, when fixed to an LGSF or masonry supporting wall, is not subject to any restrictions on proximity to boundaries and building height, in accordance with the national Building Regulations.

The Product, when fixed to a STF supporting wall, is subject to restrictions on proximity to boundaries and to building height under the national Building Regulations:

- for all building in Wales and Northern Ireland, and non-residential buildings in England, the Product shall not be used on buildings with a storey of 18 m or more above ground level. Refer to the relevant national Building Regulations for types of buildings and any exclusions that may apply;
- for residential buildings in England, the Product is restricted to buildings with no floor more than 11 m above ground level. Refer to the national Building Regulations for types of buildings and any exclusions that may apply;
- for all buildings in Scotland, the Product is restricted to buildings with no floor more than 11 m above ground level and not less than 1 m from the boundary. In such cases, the Product may be excluded from the unprotected area calculation, regardless of openings. Refer to the national Building Regulations for types of buildings and any exclusions that may apply;
- for dwellings in Ireland, the Product is restricted to buildings with no floor more than 15 m above ground level. Refer to the national Building Regulations for types of buildings and any exclusions that may apply;
- for buildings other than dwellings in Ireland, the Product is restricted to buildings with no floor more than 18 m above ground level. Refer to the national Building Regulations for types of buildings and any exclusions that may apply.

The fire resistance of walls is based on occupancy, size and purpose group of a building. For details, designers shall refer to the relevant requirements of the national Building Regulations.

Walls shall be designed and constructed:

- to adequately resist the passage and penetration of fire;
- so that the unseen spread of fire and smoke with concealed spaces in a wall is inhibited.

Specifiers shall refer to the relevant national Building Regulations for detailed conditions of use regarding requirements for supporting wall fire performance, cavity closers and barriers, fire stopping of service penetrations and combustibility limitations for other materials (including thermal insulation and cladding) used in the overall wall construction.

2.2.10 Durability

The service life durability of the Product will be dependent upon the environment (operating conditions) in which the Product will be used. The expected service life durability will be in excess of 30 years.

Once installed, the Product is not susceptible to damage from environmental conditions normally encountered in the UK and Ireland. The Product has a maintenance regime in accordance with Section 2.2.6.

2.2.11 UKCA, UKNI and CE marking

The British and European standard for the Product is BS EN 12467.

2.3 EXAMPLES OF TYPICAL DETAILS

Diagram 1 - CladColour HD Panel profile

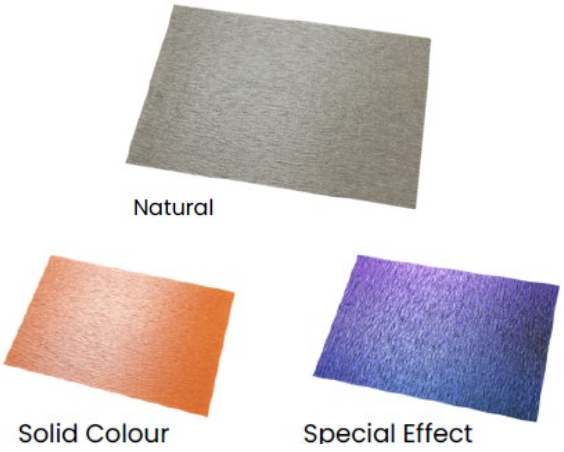


Diagram 2 - Typical installation detail of the Product on LGSF

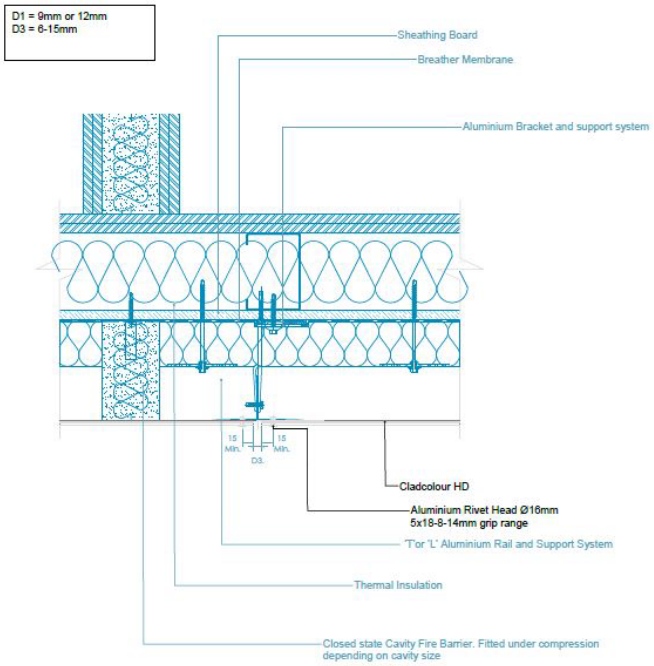


Diagram 3 - Typical installation detail of the Product on LGSF

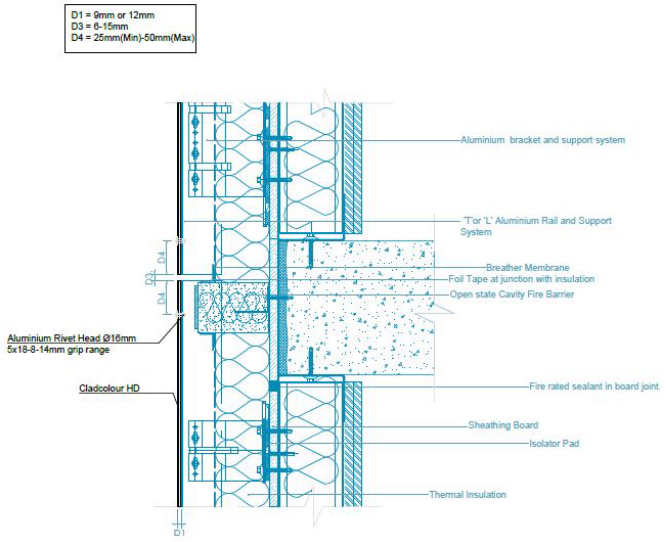
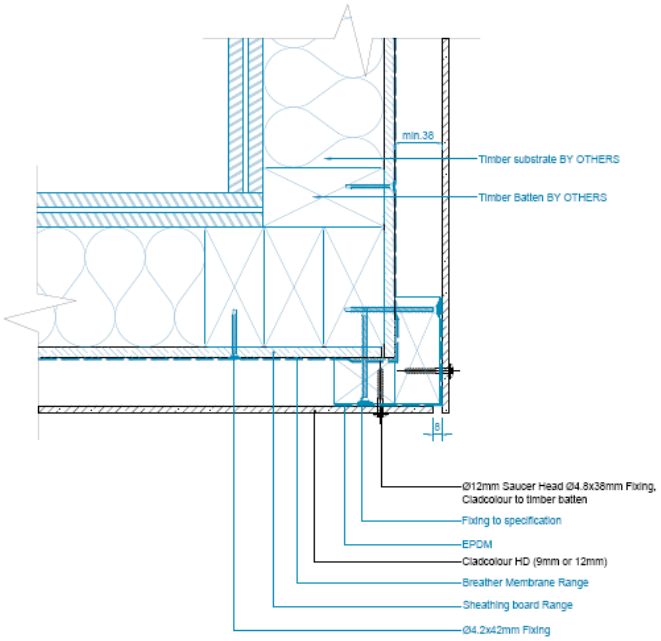


Diagram 4 - Typical installation detail of the Product on STF



2.4 INSTALLATION

The Product shall be installed strictly in accordance with the instructions (hereinafter 'Installation Manual') of the Agrément holder, the requirements of this Agrément and the requirements of BS 8000-0.

2.4.1 Project-specific installation considerations

The project-specific design shall be determined from a pre-installation survey.

A specification shall be prepared for each elevation of the building. The project-specific design considerations shall include confirmation that supporting walls:

- are structurally sound, in a good state of repair and show no evidence of rain or frost damage;
- meet the requirements of the relevant Standards and national Building Regulations for airtightness.

2.4.2 Preparation

The following considerations apply before starting the work:

- subframe members and supporting walls shall be correctly constructed and structurally sound.

The following work shall be undertaken before installing the Product:

- gaps around services shall be sealed using a suitable sealant or proprietary collar;
- where required, trims (cavity trim, base and head ventilation trim) shall be mechanically fixed at maximum 300 mm centres;
- check that the edges of the Product are sound; discard damaged Product or cut away damaged edges.

2.4.3 Outline installation procedure

Detailed installation procedures can be found in the Agrément holder's Installation Manual.

The outline procedure is as follows:

- install the first row of the Product above DPC level, ensuring that it is levelled on each side of the wall;
- fix the Product onto the subframe in a portrait or landscape orientation, using appropriate mechanical fixings at:
  - a minimum of 12 to 15 mm from the edges and a minimum of 50 mm from the corners;
  - a maximum of 300 mm centres vertically and a maximum of 600 mm centres horizontally;
- ensure the edges of the Product are located on the bracket/batten centre lines;
- maintain the required joint between adjacent Products, as per the project-specific design;
- when installing around windows, doors and openings, ensure the Products joints do not coincide with corners.

2.4.4 Finishing

The following finishing is required on completion of the installation:

- ensure that all open joints are clear;
- clean the Product to remove any staining sustained during installation.

2.5 INDEPENDENTLY ASSESSED PRODUCT CHARACTERISTICS

2.5.1 Moisture control

Test	Standard	Result
Water impermeability	BS EN 12467	pass
Hygrothermal conditioning (thermal shock)		no defects

2.5.2 Strength

Test		Standard	Result
Hard- and soft-body impact[1]	9 mm CladColour HD	EAD 090062-01-0404	Use Category II-b
	12 mm CladColour HD		
Characteristic pull-through resistance[2]	9 mm CladColour HD	EAD 090062-00-0404	Centre 1,376 N Edge 858 N Corner 377 N
Design wind load resistance[3]	9 mm CladColour HD		2.93 kPa[1]
	12 mm CladColour HD		
Average bending strength - Modulus of Rupture (hereinafter 'MoR') - (control)		BS EN 12467	Class 3 (13.54 MPa)
MoR - soak/dry	Perpendicular		17.21 MPa
	Parallel		10.71 MPa
MoR - warm water soak	Perpendicular		15.20 MPa
	Parallel		10.02 MPa
MoR - freeze/thaw	Perpendicular		13.09 MPa
	Parallel		11.22 MPa

[1] tested configurations comprising:

- 9 mm CladColour HD Panels fixed to the rails using Mainline SSAL5/501816/Anodised 5 mm by 18 mm by 16 mm Almg5 rivets at 300 mm centres vertically and at 600 mm centres horizontally;
- 12 mm CladColour HD Panels fixed to the rails using Mainline SSAL5/501816/Anodised 5 mm by 18 mm by 16 mm Almg5 Rivets at 300 mm centres vertically and at 600 mm centres horizontally.

[2] a partial factor of 3 shall be applied for calculation of design pull-through resistance values; Mainline SSAL5/501816/Anodised 5 mm by 18 mm by 16 mm Almg5 rivets are used in the pull-through resistance tests

[3] design wind load resistance value with partial factor of 1.5 applied

2.5.3 Fire performance

Test	Standard	Result
Reaction to fire classification	BS EN 13501-1	A1

3 CDM, NATIONAL BUILDING REGULATIONS AND THIRD-PARTY ACCEPTANCE

3.1 THE CONSTRUCTION (DESIGN AND MANAGEMENT) REGULATIONS 2015 AND THE CONSTRUCTION (DESIGN AND MANAGEMENT) REGULATIONS (NORTHERN IRELAND) 2016

Information in this Agrément may assist the client, principal designer/CDM co-ordinator, designer and contractors to address their obligations under these Regulations.

3.2 THE NATIONAL BUILDING REGULATIONS

In the opinion of Kiwa Ltd., the Product, if installed and used in accordance with Section 2 of this Agrément, can satisfy or contribute to satisfying the relevant requirements of the following national Building Regulations.

This Agrément shall not be construed to confer the compliance of any project-specific design with the national Building Regulations.

3.2.1 England

The Building Regulations 2010 and subsequent amendments

- A1(1)(a) Loading - the Product can withstand and transmit combined self-weight and wind loads to the supporting wall
- B4(1) External fire spread - the Product can adequately resist the spread of fire over walls
- C2(b) Resistance to moisture - the Product can contribute protecting a building from precipitation, including wind-driven spray
- Regulation 7(1) Materials and workmanship - the Product is manufactured from suitably safe and durable materials for their application, and can be installed to give a satisfactory performance
- Regulation 7(2) Materials and workmanship - all components which are part of the external wall or specified attachment, shall achieve European classification of A2-s1, d0 or A1

3.2.2 Wales

The Building Regulations 2010 and subsequent amendments

- A1(1)(a) Loading - the Product can withstand and transmit combined self-weight and wind loads to the supporting wall
- B4(1) External fire spread - the Product can adequately resist the spread of fire over walls
- C2(b) Resistance to moisture - the Product can contribute protecting a building from precipitation, including wind-driven spray
- Regulation 7(1) Materials and workmanship - the Product is manufactured from suitably safe and durable materials for their application, and can be installed to give a satisfactory performance
- Regulation 7(2) Materials and workmanship - all components which are part of the external wall or specified attachment, shall achieve European classification of A2-s1, d0 or A1

3.2.3 Scotland

The Building (Scotland) Regulations 2004 and subsequent amendments

3.2.3.1 Regulation 8 (1)(2) Durability, workmanship and fitness of materials

- The Product is manufactured from acceptable materials and is adequately resistant to deterioration and wear under normal service conditions, provided it is installed in accordance with the requirements of this Agrément

3.2.3.2 Regulation 8 (3) Durability, workmanship and fitness of materials

- All components which are part of the external wall or specified attachment, shall achieve European classification of A2-s1, d0 or A1

3.2.3.3 Regulation 9 Building Standards - Construction

- 1.1(a) Structure - the System can withstand and transmit combined dead, imposed and wind loads to the ground via the supporting structure
- 2.6 Spread to neighbouring buildings - the Product can inhibit the spread of fire to neighbouring buildings
- 2.7 Spread on external walls - the Product can inhibit the spread of fire on external walls
- 2.8 Spread from neighbouring buildings - the Product can inhibit the spread of fire to the building
- 3.10 Precipitation - the Product, incorporated in a structure, can contribute preventing of precipitation penetrating to the inner face of the building
- 7.1(a)(b) Statement of sustainability - the Product can contribute to meeting the relevant Requirements of Regulation 9, Standards 1 to 6, and therefore will contribute to a construction meeting a bronze level of sustainability as defined in this Standard. In addition, the System can contribute to a construction meeting a higher level of sustainability, as defined in this Standard

3.2.3.4 Regulation 12 Building Standards - Conversions

- All comments given under Regulation 9 also apply to this Regulation, with reference to Schedule 6 of The Building (Scotland) Regulations 2004 and subsequent amendments, clause 0.12 of the Technical Handbook (Domestic) and clause 0.12 of the Technical Handbook (Non-Domestic)

3.2.4 Northern Ireland

The Building Regulations (Northern Ireland) 2012 and subsequent amendments

- 23(1)(a)(i)(ii)(iii)(b) Fitness of materials and workmanship - the Product is manufactured from suitably safe and durable materials for their application, and can be installed to give a satisfactory performance
- 23(2) Fitness of materials and workmanship - all components which are part of the external wall or specified attachment, shall achieve European classification of A2-s1, d0 or A1
- 28(b) Resistance to moisture and weather - the Product, incorporated in a structure, can contribute preventing the passage of moisture
- 30(a) Stability - the Product can withstand and transmit combined self-weight and wind loads to the supporting wall
- 36(a) External fire spread - the Product can adequately resist the spread of fire over walls

3.2.5 Ireland

Building Regulations 1997 and subsequent amendments

In order to demonstrate compliance with Irish Building Regulations, this BDA Agrément® certifies that the System complies with the requirements of a recognised document and indicates it is suitable for its intended purpose and use.

- A1(1)(a) Structure - the Product can withstand and transmit combined self-weight and wind loads to the supporting wall
- B4 External fire spread - the Product can adequately resist the spread of fire over walls
- B9 External fire spread - the Product can adequately resist the spread of fire over walls and from one building to another
- C4 Resistance to weather and ground moisture - a wall incorporating the Product can contribute to adequately protecting a building from the passage of moisture from precipitation
- D1 Materials and workmanship - the Product is manufactured from suitably safe and durable materials for their application, and can be installed to give a satisfactory performance

3.3 THIRD-PARTY ACCEPTANCE

None requested by the Agrément holder.

4 SOURCES

- BS EN ISO 9001:2015+A1:2024 Quality management systems. Requirements
- BS EN ISO 16474-3:2021 Paints and varnishes. Methods of exposure to laboratory light sources. Fluorescent UV lamps
- BS EN 1991-1-1:2002 Eurocode 1. Actions on structures - General actions. Densities, self-weight, imposed loads for buildings
- NA to BS EN 1991-1-1:2002 UK National Annex to Eurocode 1. Actions on structures - General actions. Densities, self-weight, imposed loads for buildings
- 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 1992-1-1:2004+A1:2014 Eurocode 2. Design of concrete structures. General rules and rules for buildings, bridges and civil engineering structures
- NA+A2:2014 to BS EN 1992-1-1:2004+A1:2014 UK National Annex to Eurocode 2. Design of concrete structures. General rules and rules for buildings
- BS EN 1993-1-1:2005+A1:2014 Eurocode 3. Design of steel structures. General rules and rules for buildings
- NA+A1:2014 to BS EN 1993-1-1:2005+A1:2014 UK National Annex to Eurocode 3. Design of steel structures. General rules and rules for buildings
- BS EN 1993-1-3:2006 Eurocode 3. Design of steel structures. Cold-formed members and sheeting
- NA to BS EN 1993-1-3:2006 UK National Annex to Eurocode 3. Design of steel structures. General rules. Supplementary rules for cold-formed members and sheeting
- BS EN 1995-1-1:2004+A2:2014 Eurocode 5: Design of timber structures. General. Common rules and rules for buildings
- NA to BS EN 1995-1-1:2004+A2:2014 UK National Annex to Eurocode 5: Design of timber structures. General. Common rules and rules for buildings
- BS EN 1996-1-1:2005+A1:2012 Eurocode 6. Design of masonry structures. General rules for reinforced and unreinforced masonry structures
- NA to BS EN 1996-1-1:2005+A1:2012 UK National Annex to Eurocode 6. Design of masonry structures. General rules for reinforced and unreinforced masonry structures
- BS EN 1996-2:2006 Eurocode 6. Design of masonry structures. Design considerations, selection of materials and execution
- NA to BS EN 1996-2:2006 UK National Annex to Eurocode 6. Design of masonry structures. Design considerations, selection of materials and execution of masonry
- BS EN 12467:2012+A2:2018 Fibre-cement flat sheets. Product specification and test methods
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- BS 5250:2021 Management of moisture in buildings. Code of practice
- BS 8000-0:2014+A1:2024 Workmanship on construction sites. Introduction and general principles
- BRE Report 262:2002 Thermal insulation: avoiding risks. Third edition
- EAD 090062-00-0404:2018 Kits for external wall cladding mechanically fixed
- EAD 090062-01-0404:2021 Kits for external wall cladding mechanically fixed
- EOTA TR 051:2018 Recommendations for job-site tests of plastic anchors and screws
- I.S. EN 1991-1-1:2002 Eurocode 1: Actions on structures. Part 1-1: General actions. Densities, self-weight, imposed loads for buildings
- I.S. EN 1991-1-1:2002/NA:2013 Irish National Annex to Eurocode 1: Actions on structures. Part 1-1: General actions. Densities, self-weight, imposed loads for buildings
- I.S. EN 1991-1-4:2005 Eurocode 1: Actions on structures. Part 1-4: General actions. Wind actions
- I.S. EN 1991-1-4/NA:2005 Irish National Annex to Eurocode 1: Actions on structures. Part 1-4: General actions. Wind actions
- I.S. EN 1992-1-1:2004+AC:2010+A1:2014 Eurocode 2: Design of concrete structures. Part 1-1: General rules and rules for buildings
- I.S. EN 1992-1-1/NA:2004/NA:2010/AC2:2020 Irish National Annex to Eurocode 2: Design of concrete structures. Part 1-1: General rules and rules for buildings
- I.S. EN 1993-1-1:2005 Eurocode 3: Design of steel structures. Part 1-1: General rules and rules for building
- I.S. EN 1993-1-1/NA:2005 Irish National Annex (Informative) to Eurocode 3: Design of steel structures. Part 1-1: General rules and rules for building
- I.S. EN 1993-1-3:2006 Eurocode 3: Design of steel structures. Part 1-3: General rules. Supplementary rules for cold-formed members and sheeting
- I.S. EN 1993-1-3/NA:2006 Irish National Annex to Eurocode 3: Design of steel structures. Part 1-3: General rules. Supplementary rules for cold-formed members and sheeting
- I.S. EN 1995-1-1:2005 Eurocode 5: Design of timber structures. Part 1-1: General. Common rules and rules for buildings
- I.S. EN 1995-1-1/NA:2005+A1:2013 Irish National Annex to Eurocode 5: Design of timber structures. Part 1-1: General. Common rules and rules for buildings
- I.S. EN 1996-1-1:2005+A1:2012 Eurocode 6: Design of masonry structures. Part 1-1: General rules for reinforced and unreinforced masonry structures
- I.S. EN 1996-1-1+A1:2012/NA:2010+A1:2014 Eurocode 6: Design of masonry structures. Part 1-1: General rules for reinforced and unreinforced masonry structures
- I.S. EN 1996-2:2006 Eurocode 6: Design of masonry structures. Part 2: Design considerations, selection of materials and execution of masonry

- I.S. EN 1996-2/NA:2006 Irish National Annex to Eurocode 6: Design of masonry structures. Part 2: Design considerations, selection of materials and execution of masonry
- I.S. 440:2009+A1:2014 Timber frame construction, dwellings and other buildings (including amendment 1, consolidated)
- PD 6697:2019 Recommendations for the design of masonry structures to BS EN 1996-1-1 and BS EN 1996-2

Remark - Apart from these sources, technical information and confidential reports have been assessed; any relevant documents are in the possession of Kiwa Ltd. and are kept in the Technical Assessment File of this Agrément. The Installation Manual for the Product may be subject to change; contact the Agrément holder for the clarification of revisions.

5 AMENDMENT HISTORY

Revision	Amendment description	Author	Approver	Date
-	First issue	C Hewer	C Devine	April 2025
A	Updates to impact performance	A Tsourlini	C Devine	May 2025

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