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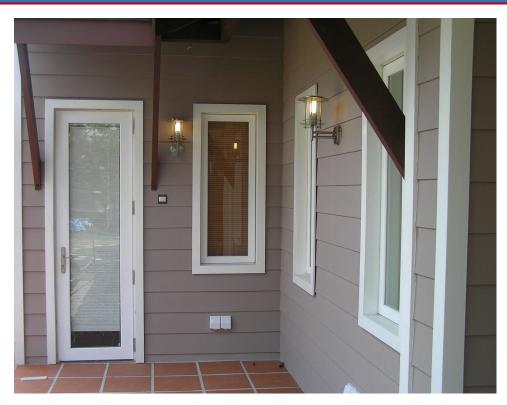
# **SCOPE OF AGRÉMENT**

This Agrément relates to WeatherClad® (hereinafter the 'Product'). The Product is designed for use as mechanically fixed, exterior non-loadbearing lap cladding. The Product is intended for installation on solid masonry supporting walls, sheathed structural timber frame (hereinafter 'STF') supporting walls or sheathed light gauge steel frame (hereinafter 'LGSF') supporting walls, via timber battens or steel rails. For use on existing and new domestic and non-domestic buildings.

# **PRODUCT DESCRIPTION**

The Product is formed from fibre-reinforced Portland cement. Available in lengths of 3600 mm to 3660 mm and widths of 209 mm to 230 mm, with a standard thickness of 7.5 mm, and with a minimum apparent density of 1340 kg/m³. The Product incorporates an acrylate-based painted finish.

# PRODUCT ILLUSTRATION



## THIRD-PARTY ACCEPTANCE

None requested by the Agrément holder.

## **STATEMENT**

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

Munico

Chris Vurley, CEng

Technical Manager, Building Products

Mark Crowther, M.A. (Oxon)

Kiwa Ltd. Technical Director

M [ Croulty

## **SUMMARY OF AGRÉMENT**

This document provides independent information to specifiers, building control personnel, contractors, installers and other construction industry professionals considering the fitness for the intended use 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** - the Product is not weathertight when installed as lap cladding and shall be used in conjunction with a suitable breather membrane (see section 2.2.9).

Strength - the Product can be incorporated in a project-specific design that can resist typical wind actions and impact damage normally encountered in the UK (see section 2.2.10).

Fire performance - the Product is classified as European Classification A2-s1, d0, in accordance with BS EN 13501-1 (see section 2.2.11).

**Durability** - when installed and maintained in accordance with the Agrément holder's recommendations and this Agrément, the Product will have a service life expectancy in excess of 30 years (see section 2.2.12).

**UKCA and CE marking** - the Agrément holder has responsibility for conformity marking, in accordance with all relevant British and European Product Standards (see section 2.2.13).

## **CONTENTS**

## Chapter 1 - General considerations

- 1.1 Conditions of use
- 1.2 Production Control and Quality Management System
- 1.3 Annual Verification procedure continuous surveillance

## Chapter 2 - Technical assessment

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- 2.2 Points of attention to the Specifier
- 2.3 Examples of typical details
- 2.4 Installation
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Chapter 4 - Sources

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## **CHAPTER 1 - GENERAL CONSIDERATIONS**

## 1.1 - CONDITIONS OF USE

## 1.1.1 Design considerations

See section 2.2.

## 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 must be controlled by a competent person who must be an employee of the installation company.

The Product must 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 chapter 3 of this Agrément (CDM, national Building Regulations and Third-Party Acceptance).

## 1.1.6 Validity

The purpose of this BDA Agrément<sup>®</sup> is to provide for well-founded confidence to apply the Product within the Scope described. The validity of this Agrément is three years after the issue date, and as published on www.kiwa.co.uk/bda.

## 1.2 - PRODUCTION CONTROL AND QUALITY MANAGEMENT SYSTEM

Kiwa Ltd. has determined that the Agrément holder fulfils all 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 is in conformity 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.

## **CHAPTER 2 - TECHNICAL ASSESSMENT**

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

## 2.1 - PRODUCT COMPONENTS AND ANCILLARY ITEMS

## 2.1.1 Components included within the scope of this Agrément

The following components are integral to the use of the Product:

Table 1 - Component dimensions and density

Component	Description	Dimensions	
WeatherClad <sup>®</sup>		3600 mm to 3660 mm length 209 mm to 230 mm width	
	Painted, optional wood grain texture, factory finish, Category A, Class 2 cladding plank manufactured in accordance with BS EN 12467		
		7.5 mm thickness	
		1340 kg/m <sup>3</sup> minimum apparent density	
mechanical fixings	grade 304 stainless steel, annular ring nails, for timber frames and timber battens <sup>^</sup>	2.65 mm by 50 mm long	
	self-drilling 'Wing Teks' Screws C1, for 0.55 mm to 1.60 mm thick LGSF profiles'	No.8 by 28 mm long	

mechanical fixings of the same or better characteristics (e.g. stiffness, head diameter, shaft diameter and length) can be used

## 2.1.2 Ancillary items falling outside the scope of this Agrément

Ancillary items detailed in this section may be used in conjunction with the Product but fall outside the scope of this Agrément:

- breather membrane UV durable to BS EN 13859-2 used in conjunction with sheathing on framed applications;
- starter profile and ventilation grille to prevent insects and pests entering through the ventilation gap;
- aluminium finishing profiles for continuity of design (internal and external corners, windows, doors and any other openings);
- timber battens/steel rails used as framing to support the Product at maximum 600 mm centres ensuring the specified fixings are fully embedded into the substrate;
- sheathing board cement bonded particle board (hereinafter 'CBPB'), oriented strand board (hereinafter 'OSB'), or marine-grade plywood. Used in conjunction with LGSF and STF supporting walls;
- touch-up paint to finish screw heads post-installation;
- silicone/flexible sealant.

## 2.2 - POINTS OF ATTENTION TO THE SPECIFIER

## 2.2.1 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 installing contractor is responsible for the final as-built design.

# 2.2.2 Applied building physics (heat, air, moisture)

A competent Specialist shall check the physical behaviour of a project specific design incorporating the Product and if necessary can offer advice in respect of 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 consultant Specialist co-operates closely with the Agrément holder).

## 2.2.3 General design considerations

The Product shall be fixed to a structurally adequate solid masonry supporting wall, sheathed LGSF supporting wall or sheathed STF supporting wall. The supporting wall shall:

- satisfy the requirements of the national Building Regulations;
- · be watertight;
- be as airtight as possible.

Assessment of the structural performance of the Product shall be carried out by the Agrément holder to confirm that the Product can resist the design impact, dead and wind loads, can safely transfer loads to a building and can accommodate all anticipated thermal movements without damage. Deflection shall be limited to prevent damage of the Product.

Sheathed LGSF supporting walls shall be:

- designed in accordance with BS EN 1993-1-1 and BS EN 1993-1-3;
- constructed from members not less than 1.2 mm thick with a minimum flange length of 50 mm.

Sheathed STF supporting walls shall be:

- designed in accordance with BS EN 1995-1-1 and BS EN 14081-1;
- constructed from members not less than 37 mm thick with a minimum width of 72 mm, preservative treated in accordance with BS 8417. Also refer to NHBC
  Standards, Part 3 General, Chapter 3.3 Timber preservation (natural solid timber) for guidance on recommended timber preservation.

LGSF and STF supporting walls shall be sheathed with CBPB, OSB, or marine-grade plywood:

- CBPB shall be:
  - a minimum thickness of 10 mm;
  - o manufactured in accordance with BS EN 12467 or BS EN 634-2.
- OSB shall be:
  - o a minimum thickness of 11 mm;
  - o manufactured in accordance with BS EN 300.

- marine-grade plywood shall be:
  - o a minimum thickness of 12 mm;
  - manufactured in accordance with BS EN 313-1.

Sheathing boards shall be classified as European Classification A1 or A2-s1, d0, in accordance with BS EN 13501-1, when the height of the project-specific design is over:

- 18 m in England, Wales and Northern Ireland;
- 11 m in Scotland.

The Product shall be secured to the supporting wall with fixings that pass through the subframe comprising timber battens/steel rails that form the cavity between the supporting wall and the Product.

Timber battens shall be preservative treated and have minimum dimensions of 15 mm by 50 mm.

A ventilated and drained cavity shall be specified between a breather membrane and the Product in accordance with BS 5250. The depth of the cavity shall be a minimum of 15 mm with a minimum 1500 mm<sup>2</sup> of ventilation apertures per metre of wall length at the building base profile and at the roof edge.

All ventilation openings around the periphery of the Product shall be suitably protected with a ventilation protection mesh or a perforated sheet or similar, to prevent the ingress of birds, vermin and insects.

## 2.2.4 Project specific design considerations

A pre-installation survey is required for the installation of the Product - see section 2.4.3.

## 2.2.5 Permitted applications

Only applications designed according to the specifications given in this Agrément are permitted; in each case the Specifier will have to co-operate closely with the Agrément holder.

## 2.2.6 Installer competence level

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

Installation can be undertaken by competent persons experienced in this sort of work.

## 2.2.7 Delivery, storage and site handling

The Product is delivered to site in suitable packaging, that bears the Product name, the Agrément holder's name and the BDA Agrément<sup>®</sup> logo incorporating the number of this Agrément.

Store the Product in accordance with the Agrément holder's requirements. Particular care must 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;
- store in a well-ventilated covered area to protect from rain, frost and humidity;
- store away from possible ignition sources.

## 2.2.8 Maintenance and repair

Once installed, the Product requires regular maintenance. For 60-year durability, a bespoke extended repair and maintenance protocol will apply. For advice in respect of repair and maintenance, consult the Agrément holder.

If the Product becomes damaged, it shall be replaced as soon as possible.

## Performance factors in relation to the Major Points of Assessment

## 2.2.9 Moisture control

When installed on sheathed STF or LGSF supporting walls, the Product shall be backed with a breather membrane acting as a vapour-permeable barrier. When installed on fully watertight solid masonry supporting walls it is also recommended to use a breather membrane.

The Product shall be installed such that horizontal lapped joints between the Product components will allow minimal water to enter the cavity. The cavity is ventilated and drained to prevent moisture build-up caused by wind-driven rain, rain and condensation.

The ventilated and drained cavity between the Product and the supporting wall shall be in accordance with the requirements of NHBC Standards, Part 6 Superstructure (excluding roofs), Chapter 6.9 Curtain walling and cladding.

# 2.2.10 Strength

Wind actions shall be calculated in accordance with BS EN 1991-1-4. Due consideration shall be given to locations with high pressure coefficients, as additional fixings may be necessary. A wind load partial safety factor of 1.5 is recommended to be used to determine the ultimate wind load to be resisted by the Product, in accordance with BS EN 1990.

The supporting wall shall have sufficient strength to withstand all dead loads from wind and racking. No contribution from the Product may be assumed in this regard.

The strength of the supporting wall shall be verified by a suitably qualified engineer. The project-specific design shall ensure that the Product and subframe attachment to the supporting wall has adequate fixing pull-out capacity for the calculated wind loads.

Timber battens/steel rails shall be fixed into the sheathing board and/or existing studwork of STF or LGSF with fixings that achieve a minimum pull-out of 0.7 kN (subject to wind load calculations).

The design of sheathed STF and LGSF supporting walls shall be in accordance with the relevant codes and Standards so as to limit mid-span deflections to L/200 and cantilever deflections to L/150.

The Product has been tested for:

- dynamic wind uplift load (suction) resistance and mechanical strength in accordance with ETAG 034. See section 2.5.2 in this Agrément for details;
- pull through resistance of timber fasteners in accordance with methodology based on BS EN 1383. See section 2.5.2 in this Agrément for details.

For hard and soft body impact resistance, the Product is classified as Category III and IV as defined in ETAG 034, Part 1. As such its use is limited to Use Categories III and IV shown below:

- I a zone readily accessible at ground level to the public and vulnerable to hard-body impacts but not subjected to abnormally rough use;
- II a zone liable to impacts from thrown or kicked objects, but in public locations where the height of the kit will limit the size of the impact; or at lower levels where access to the building is primarily to those with some incentive to exercise care;
- III a zone not likely to be damaged by normal impacts caused by people or by thrown or kicked objects;
- IV a zone out of reach from ground level.

## 2.2.11 Fire performance

The Product is classified as European Classification A2-s1, d0, in accordance with BS EN 13501-1, when the Product is supplied with a painted finish.

LGSF supporting walls, steel rails and stainless-steel fixings are classified as non-combustible in accordance with the relevant national Building Regulations.

STF supporting walls and timber battens are not classified as non-combustible or of limited combustibility in accordance with the relevant national Building Regulations.

When the Product is fixed to a LGSF supporting wall with steel rails there are no restrictions on building height or distance to boundaries under the national Building Regulations.

When the Product is fixed to a STF supporting wall there are no restrictions on distance to boundaries, however, restrictions apply to building height under the national Building Regulations; the Product may be specified for use up to and including 18 m in height In England, Wales, Northern Ireland and Scotland.

Cavity fire barriers must be installed in the cavity behind the cladding as advised in BRE Report 135 and as required under the national Building Regulations.

Designers shall refer to the relevant national Building Regulations and guidance for detailed conditions of use, particularly in respect of requirements for substrate fire performance, cavity closers and barriers, fire stopping of service penetrations and combustibility limitations for other materials and components used in the overall wall construction.

## 2.2.12 Durability

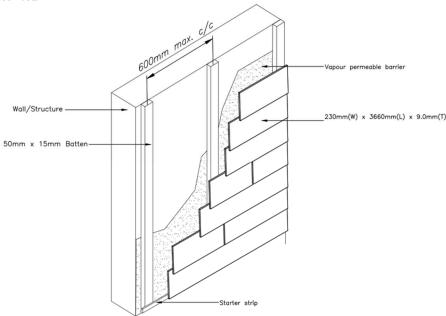
The Product will have a service life durability in excess of 30 years.

## 2.2.13 UKCA and CE marking

The harmonised European standard for the Product is BS EN 12467.

# 2.3 - EXAMPLES OF TYPICAL DETAILS

Diagram 1 - Typical construction detail



## 2.4 - INSTALLATION

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

## 2.4.1 Installer competence level

See section 2.2.6.

## 2.4.2 Delivery, storage and site handling

See section 2.2.7.

## 2.4.3 Project specific installation considerations

A pre-installation survey is required for the installation of the Product.

The project-specific design has been determined from a pre-installation survey.

A specification has been prepared for each elevation of the building indicating where appropriate:

- damp-proof course (DPC) level, the position of base rail, water deflection beads/battens/channels, expansion joints and weather seals;
- detailing around windows, doors, etc.;
- identification of services and any fittings requiring removal or alteration to facilitate installation of the Product;
- identification of areas where silicone/flexible sealants must be used.

Fixing pull-out tests of the supporting wall shall be undertaken to determine pull-out strength values (see section 2.2.10). Testing shall be in accordance with the Construction Fixings Association Guidance Note: Procedure for Site Testing Construction Fixings; pull-out test loads must be 2.5 x design load. Pull-out resistance strengths of the supporting wall, timber battens/steel rails and sheathing board fixings shall be verified by a competent person and shown to be adequate before installation of the Product.

Subsequent project-specific design considerations include confirmation that existing supporting walls:

- exhibit no signs of existing rising damp and that there are no signs of damp on the inner face of the supporting wall, other than those caused solely by condensation;
- are structurally sound, in a good state of repair and show no evidence of rain or frost damage;
- · are watertight, clean, and meet the requirements of the relevant Standards and national Building Regulations for airtightness.

# 2.4.4 Preparation

The following considerations apply prior to commencement of the work:

- supporting framing components shall have adequate strength to resist applied wind loads;
- at joints, battens shall be wide enough to ensure that the minimum edge fixing distances of the Product can be maintained.

The following works must be undertaken prior to the installation of the Product:

- the sub-frame shall be adequately fixed to support the Product in accordance with this Agrément and the Agrément holder's instructions;
- cutting of the Product can be performed using a circular saw. For recommended blade diameters, consult the Agrément holder.

## 2.4.5 Outline installation procedure

The detailed installation sequence can be found in full in the Agrément holder's Installation Manual.

The key sequence for installation is:

- fix the base plate (also known as a starter profile/strip) to the timber battens/steel rails;
- fix end and corner profiles to all openings;
- place base panels on the starter profile and fix to the timber battens/steel rails;
- place spacers between joints as a guide for alignment;
- place the Product on the spacers and fix to the timber battens/steel rails allowing a 30 mm overlap of the lower edge over the previous row;
- install subsequent courses of the Product as above with ends staggered;
- at the top of the supporting wall, install a ventilation grille allowing for a 10 mm gap between the upper Product component and soffit Product component.

## 2.4.6 Finishing

The following finishing is required upon completion of the installation:

at the top of the wall, the top fixings will be visible. Colour-matched screws are recommended, alternatively, touch-up paint can be used to hide the fixings.

# 2.5 - INDEPENDENTLY ASSESSED PRODUCT CHARACTERISTICS

# 2.5.1 Moisture control

Test	Test standard	Result	Units
Water vapour resistance factor (µ)	BS EN ISO 12572	91	-
Water diffusion - equivalent air layer thickness (Sd)		0.72	m

2.5.2 Strength

Test	Test Standard	Result	Units
Design wind load resistance	ETAG 034 <sup>i</sup>	1.33 <sup>ii</sup>	kN/m <sup>2</sup>
	BS EN 1383 <sup>i</sup>	591.3	N (mean)
Pull through resistance of timber fasteners		511.36 <sup>iii</sup>	N (characteristic)
-		214.97 <sup>iv</sup>	N (design)
Mean bending strength (wet)	BS EN 12467	12.8 x 10 <sup>3</sup>	kN/m²
Mean modulus of elasticity (wet)	BS EN 12407	5.44 x 10 <sup>6</sup>	kN/m <sup>2</sup>
Hard and soft body impact	ISO 7892 and ETAG 034	Use Category III and IV	-

values for solid masonry walls with vertical timber battens of 38 mm x 47 mm at 600 mm centres, and 50 x 2.65 mm grade 304 stainless steel annular ring nails

# 2.5.3 Fire performance

Test	Test standard	Result
Reaction to fire classification	BS EN 13501-1	A2-s1, d0

# 2.5.4 Other product characteristics

Test	Test standard	Result	Units
Freeze-thaw, RL		1.04	-
Warm water, R <sub>L</sub>	BS EN 12467	1.11	-
Soak-dry, R <sub>L</sub>	BS EN 12407	0.90	-
Minimum apparent density		1340	kg/m <sup>3</sup>

ii includes partial factor of 1.5

iii calculated in accordance with BS EN 1990

iv includes partial factor of 2.4

## CHAPTER 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 Chapter 2 of this Agrément, can satisfy or contribute to satisfying the relevant requirements of the following national Building Regulations.

# 3.2.1 - ENGLAND THE BUILDING REGULATIONS 2010 AND SUBSEQUENT AMENDMENTS

- A1(1)(2) Loading the Product can sustain and transmit combined dead, imposed and wind loads to the ground via a supporting wall
- B3(4) Internal fire spread the Product can contribute to satisfying this Requirement
- B4(1) External fire spread the Product can contribute to satisfying this Requirement
- C2(b) Resistance to moisture the Product, when used in conjunction with a breather membrane, can adequately protect walls from precipitation including wind-driven spray
- Regulation 7(1) Materials and workmanship the Product is manufactured from suitably safe and durable materials for its application and can be installed to give a satisfactory performance
- Regulation 7(2) Materials and workmanship the Product can contribute to satisfying this Requirement

# 3.2.2 - WALES THE BUILDING REGULATIONS 2010 AND SUBSEQUENT AMENDMENTS

- A1(1)(2) Loading the Product can sustain and transmit combined dead, imposed and wind loads to the ground via a supporting wall
- B3(4) Internal fire spread the Product can contribute to satisfying this Requirement
- B4(1) External fire spread the Product can contribute to satisfying this Requirement
- C2(b) Resistance to moisture the Product, when used in conjunction with a breather membrane, can adequately protect walls from precipitation including wind-driven spray
- Regulation 7(1) Materials and workmanship the Product is manufactured from suitably safe and durable materials for its application and can be installed to give a satisfactory performance
- Regulation 7(2) Materials and workmanship the Product can contribute to satisfying this Requirement

# 3.2.3 - SCOTLAND THE BUILDING (SCOTLAND) REGULATIONS 2004 AND SUBSEQUENT AMENDMENTS

## 3.2.3.1 Regulations 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

## 3.2.3.2 Regulation 9 Building standards - construction

- 1.1(a)(b) Structure the Product can sustain and transmit combined dead, imposed and wind loads to the ground via a supporting wall
- 2.4 Cavities the Product can inhibit the unseen spread of fire and smoke within concealed spaces
- 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 the external walls of a building
- 2.8 Spread from neighbouring buildings the Product can inhibit the spread of fire to a building
- . 3.10 Precipitation the Product, when used in conjunction with a breather membrane, can resist precipitation penetrating to the inner face of a building
- 7.1(a)(b) Statement of sustainability the Product can contribute to satisfying the relevant Requirements of Regulation 9, Standards 1 to 6, and therefore will contribute to a construction meeting a bronze level of sustainability as defined in this Standard; in addition, the Product can contribute to a construction meeting a higher level of sustainability as defined in this Standard

# 3.2.3.3 Regulation 12 Building standards - conversions

All comments given under Regulation 9 also apply to this Regulation, with reference to Schedule 6

# 3.2.4 - NORTHERN IRELAND THE BUILDING REGULATIONS (NORTHERN IRELAND) 2012 AND SUBSEQUENT AMENDMENTS

- 23(a)(b) Fitness of materials and workmanship the Product is of a suitable nature and quality in relation to the purposes it is intended for and the
  conditions of its use
- 28(b) Resistance to moisture and weather the Product, when used in conjunction with a breather membrane, can prevent the passage of moisture from
  the weather
- 30(a) Stability the Product can sustain and transmit combined dead, imposed and wind loads safely to the ground
- 35(4) Internal fire spread the Product can inhibit the unseen spread of fire and smoke within concealed spaces
- 36(a) External fire spread the Product can resist the spread of fire over it and from one building to another

# 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 Product complies with the requirements of a recognised document and indicates it is suitable for its intended purpose and use:

- A1(1)(2) Loading the Product can sustain and transmit combined dead, imposed and wind loads to the ground via a supporting wall
- B3(3) Internal fire spread the Product can contribute to satisfying this Requirement
- B4 External Fire Spread the Product can contribute to satisfying this Requirement
- B9 External Fire Spread the Product can contribute to satisfying this Requirement
- C4 Resistance to weather and ground moisture the Product, when used in conjunction with a breather membrane, can adequately protect walls from
  precipitation including wind-driven spray
- D1 Materials and workmanship the Product, when installed in accordance with this Agrément, can meet the relevant Requirements, is manufactured from suitably safe and durable materials for its application and can be installed to give a satisfactory performance

## 3.3 - THIRD-PARTY ACCEPTANCE

None requested by the Agrément holder.

## **CHAPTER 4 - SOURCES**

- BS EN ISO 12572:2016 Hygrothermal performance of building materials and products. Determination of water vapour transmission properties. Cup method
- BS EN 300:2006. Oriented strand boards (OSB). Definitions, classification and specifications
- BS EN 313-1:1996 Plywood. Classification and terminology. Plywood. Classification and terminology. Classification
- BS EN 634-2:2007 Cement-bonded particleboards. Specifications. Requirements for OPC bonded particleboards for use in dry, humid and external
  conditions
- BS EN 1383:2016 Timber structures. Test methods. Pull through resistance of timber fasteners
- BS EN 1990:2002+A1:2005 Eurocode. Basis of structural 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
- NA to BS EN 1991-1-4:2005+A1:2010 UK National Annex to Eurocode 1. Actions on structures. General actions
- 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
- 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 12467:2012+A2:2018 Fibre-cement flat sheets. Product specification and test methods
- BS EN 13501-1:2018 Fire classification of construction products and building elements. Classification using data from reaction to fire tests
- BS EN 13859-2:2014 Flexible sheets for waterproofing. Definitions and characteristics of underlays. Underlays for walls
- BS EN 14081-1:2016+A1:2019 Timber structures. Strength graded structural timber with rectangular cross section. General requirements
- BS 5250:2011+A1:2016 Code of practice for control of condensation in buildings
- BS 8417:2011+A1:2014 Preservation of wood. Code of practice
- ISO 7892:1988 Vertical building elements. Impact resistance tests. Impact bodies and general test procedures
- BRE Report 135:2013 Fire performance of external thermal insulation for walls of multi-storey buildings
- Construction Fixings Association Guidance Note: 2012 Procedure for Site Testing Construction Fixings
- ETAG 034:2012 Guideline for European Technical Approval of Kits for External Wall Claddings, Part 1 Ventilated cladding kits comprising cladding components and associated fixings

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

## **CHAPTER 5 - AMENDMENT HISTORY**

Revision	Amendment Description	Amended By	Approved By	Date
-	First Issue	C Devine	C Vurley	July 2021