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Agrément Certificate
91/2691
Product Sheet 5 Issue 2

WEBER EXTERNAL WALL INSULATION SYSTEMS

WEBERTHERM XM EXTERNAL WALL INSULATION SYSTEM

This Agrément Certificate Product Sheet(1) relates to the webertherm XM External Wall Insulation System, comprising mineral wool (MW) insulation slabs, mechanically fixed to a sheathed steel-framed building substrate; a reinforced basecoat; and either render or brick slip finishes. The system is suitable for use, with height restrictions in some cases, on the outside of new and existing domestic and non-domestic buildings.

(1) Hereinafter referred to as 'Certificate'.

The assessment includes

Product factors:

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

Process factors:

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

Ongoing contractual Scheme elements†:

- regular assessment of production
- formal 3-yearly review

KEY FACTORS ASSESSED

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

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

On behalf of the British Board of Agrément

Date of Second issue: 4 January 2024
Originally certified on 8 November 2020

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 p urposes only, do not constitute advice and should not be relied upon.

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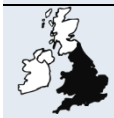
SUMMARY OF ASSESSMENT AND COMPLIANCE

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 the webertherm XM External Wall Insulation System, if installed, used and maintained in accordance with this Certificate, can satisfy or contribute to satisfying the relevant requirements of the following Building Regulations:



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

Requirement:	**A1**	**Loading**
Comment:		The system can sustain and transmit wind loads to the substrate wall. See section 1 of this Certificate.
Requirement:	**B4(1)**	**External fire spread**
Comment:		The system may be restricted by this Requirement. See section 2 of this Certificate.
Requirement:	**C2(b)**	**Resistance to moisture**
Comment:		The system provides a degree of protection against rain ingress. See section 3 of this Certificate.
Requirement:	**C2(c)**	**Resistance to moisture**
Comment:		The system can contribute to minimising the risk of interstitial and surface condensation. See section 3 of this Certificate.
Requirement:	**L1(a)(i)**	**Conservation of fuel and power**
Comment:		The system can contribute to satisfying this Requirement. See section 6 of this Certificate.
Regulation:	**7(1)**	**Materials and workmanship**
Comment:		The system is acceptable. See sections 8 and 9 of this Certificate.
Regulation:	**7(2)**	**Materials and workmanship**
Comment:		The system may be restricted by this Regulation. See section 2 of this Certificate.
Regulation:	**25B**	**Nearly zero-energy requirements for new buildings**
Regulation:	**26**	**CO_2 emission rates for new buildings**
Regulation:	**26A**	**Fabric energy efficiency rates for new dwellings (applicable to England only)**
Regulation:	**26A**	**Primary energy consumption rates for new buildings (applicable to Wales only)**
Regulation:	**26B**	**Fabric performance values for new dwellings (applicable to Wales only)**
Regulation:	**26C**	**Target primary energy rates for new buildings (applicable to England only)**
Regulation:	**26C**	**Energy efficiency rating (applicable to Wales only)**
Comment:		The system can contribute to satisfying these Regulations. See section 6 of this Certificate.

The Building (Scotland) Regulations 2004 (as amended)

Regulation:	**8(1)(2)**	**Fitness and durability of materials and workmanship**
Comment:		The system can contribute to the construction satisfying this Regulation. See sections 8 and 9 of this Certificate.
Regulation:	**8(3)**	**Fitness and durability of materials and workmanship**
Comment:		The system may be restricted by this Regulation. See section 2 of this Certificate.

Regulation:	**9**	**Building standards — construction**
Standard:	1.1	Structure
Comment:		The system can sustain and transmit wind loads to the substrate wall. See section 1 of this Certificate.
Standard:	2.4	Cavities
Comment:		The system can contribute to satisfying this Standard, with reference to clauses 2.4.4(1) and 2.4.6(2). See section 2 of this Certificate.
Standard:	2.6	Spread to neighbouring buildings
Comment:		The system 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:	2.7	Spread on external walls
Comment:		The system may be restricted by this Standard, with reference to clause 2.7.1(1)(2). See section 2 of this Certificate.
Standard:	3.10	Precipitation
Comment:		The system can contribute to a construction satisfying this Standard, with reference to clauses 3.10.1(1)(2) and 3.10.6(1)(2). See section 3 of this Certificate.
Standard:	3.15	Condensation
Comment:		The system can satisfy the requirements of this Standard, with reference to clauses 3.15.1(1)(2), 3.15.4(1)(2) and 3.15.5(1)(2). See section 3 of this Certificate.
Standard:	6.1 (b)(c)(d)	Energy demand and carbon dioxide emissions
Comment:		The system can contribute to satisfying this Standard, with reference to clauses, or parts of, 6.1.1(1) and 6.1.6(1.
Standard:	6.2	Building insulation envelope
Comment:		The system can contribute to satisfying this Standard, with reference to clauses, or parts of, 6.2.1(1)(2), 6.2.3(1), 6.2.4(2), 6.2.5(2), 6.2.6(1), 6.2.7(1), 6.2.8(2), 6.2.9(1)(2), 6.2.10(1), 6.2.11(1)(2), 6.2.12(2) and 6.2.13(1)(2).
Standard:	7.1(a)(b)	Statement of sustainability
Comment:		The system can contribute to satisfying the relevant requirements of Regulation 9, Standards 1 to 6, and therefore will contribute to a construction meeting the 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 with reference to clauses 7.1.4(1), 7.1.6(1)(2), 7.1.7(1), 7.1.9(2) and 7.1.10(2). See section 6 of this Certificate.
Regulation:	**12**	**Building standards — conversions**
Comment:		Comments in relation to the system under Regulation 9, Standards 1 to 6, also apply to this Regulation, with reference to clause 0.12.1(1)(2) and Schedule 6(1)(2).

(1) Technical Handbook (Domestic).
(2) Technical Handbook (Non-Domestic).

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

Regulation:	**23(1)(a)(i) (iii)(b)(i)(ii)**	**Fitness of materials and workmanship**
Comment:		The system is acceptable. See sections 8 and 9 of this Certificate.
Regulation:	**23(2)**	**Fitness of materials and workmanship**
Comment:		The system may be restricted by this Regulation. See section 2 of this Certificate.
Regulation:	**28(b)**	**Resistance to moisture and weather**
Comment:		The system provides a degree of protection against rain ingress. See section 3 of this Certificate.

Regulation:	**29**	**Condensation**
Comment:		Walls insulated with the system can contribute to satisfying the requirements of this Regulation. See section 3 of this Certificate.
Regulation:	**30**	**Stability**
Comment:		The system can sustain and transmit wind loads to the substrate wall. See section 1 of this Certificate.
Regulation:	**36(a)**	**External fire spread**
Comment:		The system may be restricted by this Regulation. See section 2 of this Certificate.
Regulation:	**39(a)(i)**	**Conservation measures**
Comment:		The system can contribute to satisfying this Regulation. See section 6 of this Certificate.
Regulation:	**40(2)**	**Target carbon dioxide emission rate**
Regulation	**43(1)(2)**	**Renovation of thermal elements**
Regulation:	**43B**	**Nearly zero-energy requirements for new buildings**
Comment:		The system can contribute to satisfying these Regulations. See section 6 of this Certificate.

Fulfilment of Requirements

The BBA has judged the webertherm XM External Wall Insulation System to be satisfactory for use in reducing the thermal transmittance (U value) of sheathed lightweight-steel-framed structures of new or existing domestic and non-domestic buildings, as described in this Certificate.

ASSESSMENT

Product description and intended use

The Certificate holder provided the following description for the system under assessment.

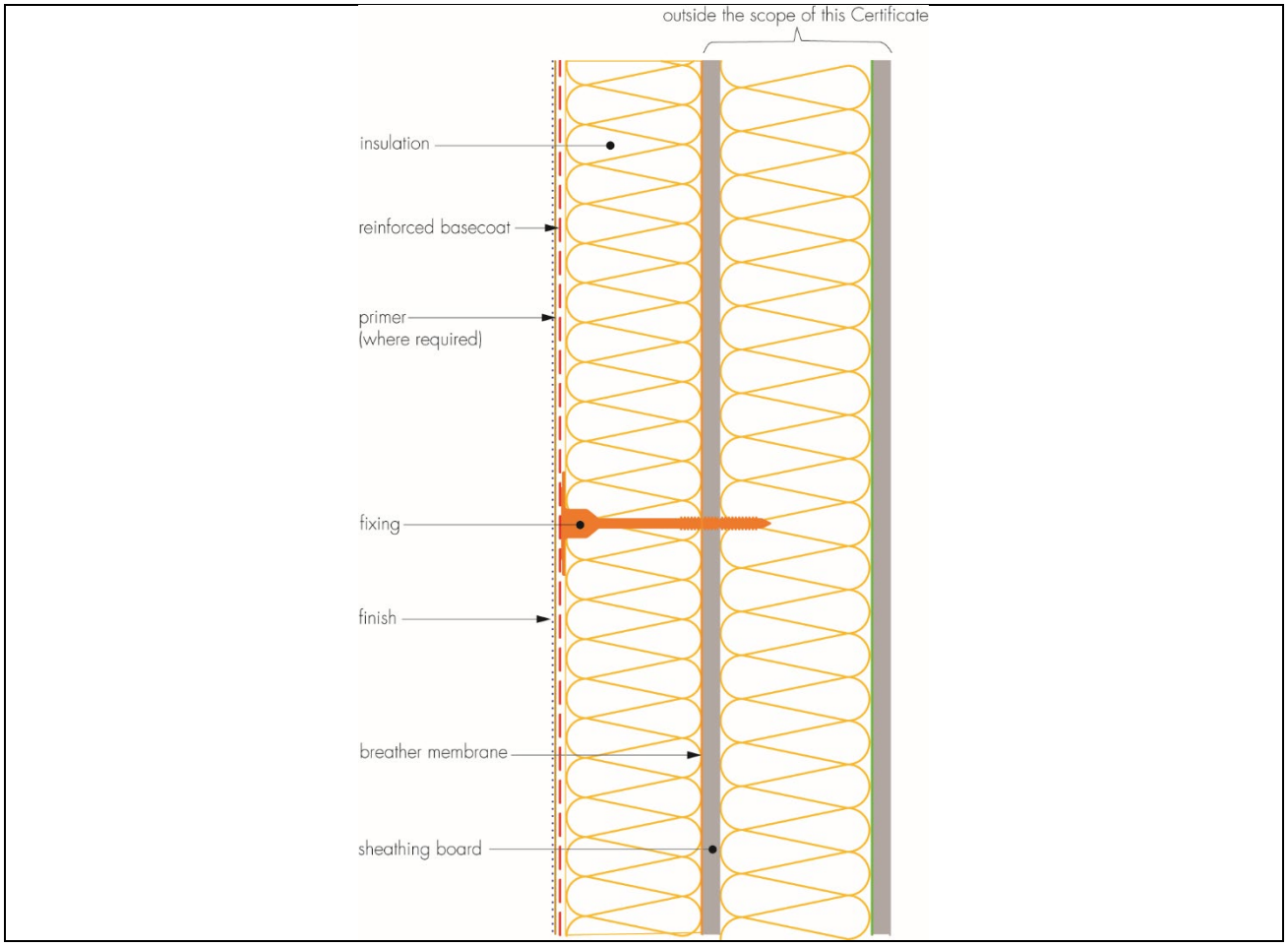
The webertherm XM External Wall Insulation System comprises mineral wool (MW) insulation slabs, mechanically fixed to a 12 mm (minimum) thick exterior grade cement particle sheathing board with a breather membrane on steel-framed structures, with a reinforced basecoat and either render or brick slip finishes (see Figure 1 and Table 1).

The system components are given in Table 1 and below:

Table 1 Options for the webertherm XM system

Components	Option 1	Option 2 (weberwall fast brick)	Option 3
Insulation	webertherm MFD	webertherm MFD	webertherm MFD
Basecoat	weberend LAC	weberwall brick external adhesive	weberend LAC rapid
Reinforcement	weber mesh	weber mesh	weber mesh
Primer	weber PR310	—	—
Finish	weberplast TF websersil TF webermineral TF	weberwall brick pointed with weberwall brick pointing mortar	weberplast TF websersil TF webermineral TF

Figure 1 webertherm XM External Wall Insulation System



Insulation(1)

- webertherm MFD (mineral fibre dual-density) Insulation Slabs — 1200 by 600 mm in a range of thicknesses between 50 and 200 mm, with nominal densities of 160/100 kg·m^{-3} (outer/inner layer), a minimum compressive strength of 10 kPa and a minimum tensile strength perpendicular to the faces of 10 kN·m^{-2}. Slabs are manufactured to comply with BS EN 13162 : 2012.

(1) For the declared thermal conductivity (λ_D) value, see section 6.1.

Mechanical fixings

- EJOT SW8-R fixing(1) — self-drilling case-hardened carbon steel fixing with a Climadur organic coating, with a shaft diameter of 4.8 mm and a head diameter of 12 mm, used in conjunction with a EJOT SBH-T 65/25 washer (65 mm diameter polyethylene fixing head). Suitable for use with cement particle board and steel substrates.

(1) Other stainless steel, electro-galvanized or corrosion-resistant steel screws of similar or better characteristics (including shear strength ≥ 6.4 KN, fixing shaft diameter size ≥ 4.8 mm and fixing head diameter size 12 mm), approved by the Certificate holder and which are compatible for use with the EJOT SBH-T 65/25 washer, can be used.

Basecoat

- weberend LAC — a polymer-modified cementitious basecoat mortar, supplied as a powder to which 5 litres of clean water is added. Applied in two passes at a coverage of 6.5 kg·m^{-2} and an overall thickness of 6 mm
- weberend LAC rapid — a polymer-modified cementitious basecoat mortar, supplied as a powder to which 5 litres of clean water is added. Applied in two passes at a coverage of 6.5 kg·m^{-2} and overall thickness of 6 mm
- weberwall brick external adhesive — a polymer-modified cementitious basecoat/adhesive mortar, supplied as a powder to which 5 litres of clean water is added. Applied in two passes at a coverage of 6.5 kg·m^{-2} and an overall thickness of 6 mm.

Reinforcement

- weber mesh — a woven glass fibre reinforcing mesh (3.8 by 3.5 mm) with a polymer coating and a nominal weight of 160 g·m^{-2}.

Primer

- weber PR310 — a ready to use, white styrene-acrylic-resin-based emulsion containing fine filters and coalescing agent (see Tables 1 for compatibility with the system components). Applied at a coverage of 0.25 l·m^{-2}.

Finishing coats

Render finishes

- weberplast TF — an acrylic-bonded, textured render supplied as a paste containing aggregates of 1.5 mm. Applied at a coverage of 2.8 kg·m^{-2} to give a thickness of 1.5 mm. Available in a range of colours
- webersil TF — a silicone-bonded, textured render supplied as a paste containing aggregates of 1.5 mm. Applied at a coverage of 2.7 kg·m^{-2} to give a thickness of 1.5 mm. Available in a range of colours
- webermineral TF — a polymer-modified mineral finishing coat containing aggregates of 1.5 mm, requiring the addition of 3.4 to 4.4 litres of clean water per 20 kg bag. Applied at a coverage of 2.7 kg·m^{-2} to give a thickness of 1.5 mm. Available in a range of colours.

Brick slip finish and pointing mortar

- weberwall brick — flexible mineral brick slips, supplied in standard size of dimensions 65 by 215 by 5 mm with a nominal weight of 6 kg·m^{-2} and formed of a sheet comprising several brick-slips prepressed on glass fibre mesh-reinforcement. Available as straight brick-slips and corner brick-slips and in a range of colours
- weberwall brick pointing mortar — a polymer-modified, dry powder, cement-based mortar for use with weberwall brick.

Ancillary items

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

- a range of aluminium, PVC-U or stainless steel profiles, comprising:
  - base profile
  - edge profile
  - corner profile with optional PVC-U nosing
  - render stop profile
  - movement joint
  - expansion joint
- profile connectors and fixings
- lightweight steel-framed (LWSF) sheathed construction, including cement particle sheathing board
- breather membrane
- silicone sealant in accordance with BS EN ISO 11600 : 2003.

Product assessment – key factors

The system was assessed for the following key factors, and the outcome of the assessments is shown below. Conclusions relating to the Building Regulations apply to the whole of the UK unless otherwise stated.

1 Mechanical resistance and stability

Data were assessed for the following characteristics (see section 9).

1.1 Wind loading

1.1.1 Dry fix installations correctly designed in accordance with this Certificate will safely accommodate the applied loads due to the self-weight of the system, wind and impact when using insulation with a maximum thickness of 200 mm, any render system and EJOT SW8-R fixing with SBH-T 65/25 washer.

1.1.2 Bond strength – the bond resistance between the insulation and render interface derived from test results must be taken as the value given in Table 2. The design resistance of the bond between the insulation and render (N_{RD1}) must be taken as the bond resistance divided by a partial factor of 9.

Table 2 Bond strength

System assessed	Assessment method	Requirement	Result
webertherm XM External Wall Insulation System	EAD 040083-00-0404 Section 2.2.20	– To be at least 80 kPa with cohesive rupture, or – The rupture occurs in the thermal insulation system (100% cohesive rupture) if resistance is < 80 kPa	10 $kN \cdot m^{-2}$ Rupture occurred in the insulation

1.1.3 Pull out resistance – the characteristic pull-out resistance must be established from site-specific pull-out tests conducted on the sheathing board of the building to ascertain the minimum resistance to pull-out failure of the fixings, which is determined in accordance with the guidance given in EOTA TR051 : 2016 (minimum test characteristic pull out resistance (N_{RK1}) = 0.6 x mean of 5 lowest test results). To obtain the design pull-out resistance of the fixings (N_{RD2}), this characteristic pull-out resistance value should then be divided by the partial factor given in Table 3.

Table 3 Fixings — typical characteristic pull-out resistances

Fixing type(1)	Substrate	Characteristic pull-out resistance (kN)(1)	Partial factor
EJOT SW8-R fixing	12 mm thick cement particle board	0.895	2

(1) Values are obtained in accordance with EAD 330196-00-0604 : 2016.

1.1.4 Pull through resistance – the characteristic pull-through resistance of the fixings was determined from tests using a 65 mm diameter fixing plate and a minimum insulation thickness of 50 and 110 mm. The design resistance per metre square (N_{RD3}) must be obtained by applying an appropriate partial factor as shown in Table 4.

Table 4 Design pull-through resistances

Factor (unit)	Assessment method[2]			
	Mineral wool insulation 1200 x 600 mm			
	Pull-through			
Tensile resistance of the insulation (kN·m^{-2})	≥ 10			
Fixing type[1]	EJOT SW8-R fixing in conjunction with the EJOT SBH-T 65/25 washer			
Fixing plate diameter (mm)	65			
Insulation thickness (mm)	≥50		≥110	
Characteristic pull-through resistance[2] per fixing (kN)	At panel	0.217	At panel	0.355
Partial factor[3]	2.5			
Design pull-through resistance[2] per fixing (kN)	At panel	0.087	At panel	0.142
Design pull-through resistance per slab kN (based on minimum number of fixings)[4]	0.435		0.71	
Design pull-through resistance per slab kN (based on maximum number of fixings)[5]	0.696		1.136	

(1) See Table 3 for typical characteristic pull-out resistance of the fixings.
(2) Characteristic pull-through resistance of insulation over the head of the fixing, in accordance with BS EN 1990 : 2023, Annex D7.2 and its UK National Annex using test results from section 2.2.13.1 of EAD 040083-00-0404.
(3) The partial factor is based on the assumption that all insulation slabs are quality controlled and tested to establish tensile strength perpendicular to the face of the slab.
(4) The minimum design pull-through resistance per slab is based on a minimum of 5 fixings per slab (1200 x 600 mm), which equates to approximately 7 fixings per m^2. The design resistance for the minimum number of fixings is based on the fixing pattern provided in Figure 3 and minimum insulation thickness specified in this Table. The fixing pattern and interaction of the fixings must be considered when calculating the design resistance per slab.
(5) The maximum design pull-through resistance per slab is based on a maximum of 8 fixings per slab (1200 x 600 mm), which equates to approximately 11 fixings per m^2. The design resistance for the maximum number of fixings is only applicable to the minimum insulation thickness tested and as specified in this Table. The fixing pattern, insulation thickness and interaction of the fixings must be considered when calculating the design resistance per slab.

1.1.5 The number and spacing of the fixings must be determined by the Certificate holder. The number of fixings must not be less than the minimum specified for the system and the fixings must be symmetrically positioned and evenly distributed about the centre of the slab both vertically and horizontally except at openings and building corners.

1.1.6 The data obtained from sections 1.1.2 to 1.1.4 must be assessed against the design wind load and the following expression must be satisfied:

For safe design:

$Rd \geq W_e$

$Rd_{b.ins/rend} = A_r * N_{RD1}$
$Rd_{pull\text{-}out} = n * N_{RD2}$
$Rd_{pull\text{-}through} = (N_{RD3panel} * n_{panel}) + (N_{RD3joint} * n_{joint})/A_{slab}$

Where:

Rd	is the design ultimate resistance (kN·m^{-2}) taken as the minimum of $Rd_{b.ins/rend}$, $Rd_{pull\text{-}out}$ and $Rd_{pull\text{-}through}$
W_e	is the applied ultimate wind load (kN·m^{-2})
$Rd_{b.ins/rend}$	is the design bond resistance between the insulation and render (kN·m^{-2})
$Rd_{pull\text{-}out}$	is the design pull-out resistance of the insulation fixings per metre square (kN·m^{-2})
$Rd_{pull\text{-}through}$	is the design pull-through resistance of the insulation fixings per metre square (kN·m^{-2})
A_r	is the reinforced basecoat bond area (based on % area covered)
N_{RD1}	is the design bond resistance between the insulation and render, based on test (kN·m^{-2})
n	is the number of anchor fixings per m^2
N_{RD2}	is the design pull-out resistance per fixing based on test (kN)
$N_{Rd3panel}$	is the design pull-through resistance per anchor not placed at the panel joint, based on test (kN)
$N_{Rd3joint}$	is the design pull-through resistance per anchor placed at the panel joint, based on test (kN)
n_{panel}	is the number of internal anchors in a panel
n_{joint}	is the number of joint anchors in a panel

A_{slab} is the area of the slab (m^2).

1.1.7 The insulation must be mechanically fixed to the substrate wall with a minimum of 5 fixings per slab or approximately 7 fixings per metre square (1200 by 600 mm), as per the fixing pattern shown in Figure 6. Additional fixings may be required, depending on the results of the calculations detailed above for the specific site.

1.2 Resistance to impact

1.2.1 The results of hard body impact tests are given in Table 5.

Table 5 System impact resistance

Render systems assessed: Basecoat + finishing coats indicated below	Assessment method	Category[(1)]
weberend LAC + weber PR310 + weberplast TF weberend LAC rapid + weberplast TF	Section 2.2.8 of EAD 040083-00-0404	I
weberend LAC + weber PR310 + webersil TF weberend LAC rapid + webersil TF weberend LAC rapid + weberplast TF weberend LAC rapid + webermineral TF weberend LAC + weber PR310 + webermineral TF weberwall brick external adhesive + weberwall brick + weberwall brick pointing mortar	Section 2.2.8 of EAD 040083-00-0404	II

(1) The Use Categories are defined EAD 040083-00-0404 as:

- Category I — a zone readily accessible at ground level to the public and vulnerable to hard body impacts but not subjected to abnormally rough use.
- Category II — a zone liable to impacts from thrown or kicked objects, but in public locations where the height of the system 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.
- Category III — a zone not likely to be damaged by normal impacts caused by people or by thrown or kicked objects.

1.2.2 On the basis of data assessed, the system is suitable for use in Categories l and II of EAD/UKAD 040083 00-0404, depending on the system used.

2 Safety in case of fire

2.1 Reaction to fire

2.1.1 The reaction to fire classifications of the system is given in Table 6. These classifications apply to the full range of insulation thicknesses covered by this Certificate.

Table 6 Reaction to fire classification

System assessed Finishing coats as indicated:	Assessment method	Test report[(1)]	Fire classification
Substrate – any D-s2, d0 or better webermineral TF websersil TF All topcoat colours	BS EN 13501-1 : 2018	Warringtonfire Testing and Certification Ltd. Report numbers 417450, 417451, 417463, 428391, 429117, 428357, 429352, 428235 and 429118	A2-s1, d0
Substrate – any D-s2, d0 or better weberwall brick All colours	BS EN 13501-1 : 2018		A2-s1, d0
Substrate – any D-s2, d0 or better weberplast TF All topcoat colours	BS EN 13501-1 : 2018		B-s1, d0

(1) Copies are available from the Certificate holder on request.

2.1.2 The classification and permissible areas of use of other constructions of the system must be established in accordance with the documents supporting the national Building Regulations.

2.1.3 The mineral wool insulation material in isolation is classified A1 to BS EN 13501-1 : 2007.

Systems with an A2-s1, d0 reaction to fire classification (see Table 7)

2.1.4 On the basis of the data assessed, the system is suitable for use on or at any distance from a relevant boundary and without height restrictions.

Systems with a B-s1, d0 reaction to fire classification (see Table 7)

2.1.5 On the basis of the data assessed, the system will be restricted under the documents supporting the national Building Regulations.

2.1.6 In England, the system must not be used on buildings that have a storey more than 18 m above ground level or on residential buildings that are more than 11m in height.

2.1.7 In Wales and Northern Ireland, the system must not be used on buildings that have a storey more than 18 m above ground level.

2.1.8 In Scotland, the system must not be used on buildings with a storey 11 m or more above ground level and, except on houses, 1 m or less from a relevant boundary. Restrictions also apply on some entertainment, assembly, hospital and residential care buildings. The system must be included in calculations of unprotected area.

2.1.9 For application to second storey walls and above, the designer must consider at least one stainless steel fixing per square metre and fire barriers in line with compartment walls and floors, as given in BRE Report BR 135 : 2013.

2.1.10 Designers must refer to the documents supporting the national Building Regulations for detailed conditions of use, particularly in respect of requirements for substrate fire performance, cavity barriers, service penetrations and combustibility limitations for other materials and components used in the overall wall construction.

3 Hygiene, health and the environment

Data were assessed for the following characteristics.

3.1 Water vapour permeability

The water vapour resistance (μ) factor (for the insulation slab) and equivalent air layer thicknesses (s_d) (for the render systems) are shown in Table 7.

Table 7 Water vapour resistance factor and equivalent air layer thickness

System assessed	Thickness (mm)	Result s_d (m)	Result (μ)
Mineral wool thicknesses	50 to 200	—	1[(1)]
Rendering system : weberend LAC (6 mm thick) + render system (specific particle size), as indicated below:			
weber PR310 + weberplast TF (particle size 1.5 mm)		0.69	—
weber PR310 + webersil TF (particle size 1.5 mm)		0.67	—
weber PR310 + webermineral TF (particle size 1.5 mm)		0.41	—
Rendering system : weberend LAC rapid (6 mm thick) + rendering system (specific particle size), as below:			
weberplast TF (particle size 1.5 mm)		0.47	—
webersil TF (particle size 1.5 mm)		0.46	—
webermineral TF (particle size 1.5 mm)		0.44	—
Rendering system : weberend LAC rapid (3 mm thick) + rendering system, as indicated below:			
weberwall brick external adhesive (3mm) + weberwall brick + weberwall brick pointing mortar		0.42	—

(1) Obtained from BS EN ISO 10456 : 2007, Table 4.

3.2 Condensation

3.2.1 The BBA has assessed the system for the risk of interstitial condensation, and the following must be implemented.

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

3.2.1.2 Walls incorporating the system will adequately limit the risk of interstitial condensation when they are designed and constructed in accordance with BS 5250 : 2021 and section 3.1 of this Certificate.

4 Safety and accessibility in use

Not applicable.

5 Protection against noise

Not applicable.

6 Energy economy and heat retention

Data were assessed for the following characteristics.

6.1 Thermal conductivity

Calculations of thermal transmittance (U value) must be carried out in accordance with BS EN ISO 6946 : 2017 and BRE Report BR 443 : 2019, using the insulation manufacturer's declared thermal conductivity (λ_D) value of the insulation given in Table 8.

Table 8 Declared thermal conductivity (λ_D) values and available thicknesses

Insulation type	Insulation slab thickness range (mm)	Thermal conductivity ($W \cdot m^{-1} \cdot K^{-1}$)
Mineral wool	50 to 200	0.036

6.2 Thermal performance

6.2.1 The U value of a completed wall will depend on the selected insulation type and thickness, the fixing method and type and number of fixings, and the insulating value of the substrate masonry and its internal finish. Calculated U values for sample constructions in accordance with the national Building Regulations are given in Tables 9 and 10 of this Certificate, and are based on the thermal conductivity value given in Table 8.

Table 9 Insulation thickness required to achieve U value(1)(2)

U value(3) ($W \cdot m^{-2} \cdot K^{-1}$)	Insulation thickness requirement (mm) 100 mm LWSF, fully filled with 100 mm of insulation (λ = 0.038 $W \cdot m^{-1} \cdot K^{-1}$)
0.18	170
0.19	150
0.25	100
0.26	90
0.27	90
0.28	80
0.30	70
0.35	50

(1) Wall construction inclusive of: 2 layers of 12.5 mm plasterboard (λ = 0.25 $W \cdot m^{-1} \cdot K^{-1}$), 500 gauge PE VCL, 100 mm LWSF, fully filled with 100 mm of insulation (λ = 0.038 $W \cdot m^{-1} \cdot K^{-1}$), bridged with 0.3% steel (λ = 50 $W \cdot m^{-1} \cdot K^{-1}$), 12 mm cement particle sheathing board (λ = 0.23 $W \cdot m^{-1} \cdot K^{-1}$), breather membrane, webertherm MFD insulation (λ = 0.036 $W \cdot m^{-1} \cdot K^{-1}$) and 6.5 mm external render (λ = 1.0 $W \cdot m^{-1} \cdot K^{-1}$).

(2) The external insulation is assumed to have an air gap correction (ΔU) of 0.01 $W \cdot m^{-2} \cdot K^{-1}$ and incremental thicknesses of 10 mm.

(3) A U value correction should be included for the external insulation for mechanical fixings at 5 fixings per slab with a point thermal transmittance (χp) of 0.004 $W \cdot K^{-1}$ per fixing.

6.2.2 Care must be taken in the overall design and construction of junctions with other elements and openings, to minimise thermal bridges and air infiltration. Detailed guidance can be found in the documents supporting the national Building Regulations.

7 Sustainable use of natural resources

Not applicable.

8 Durability

8.1 The potential mechanisms for degradation and performance characteristics of the materials used on the system were assessed.

8.2 Specific test data were assessed for the following:

Table 10 Watertightness - hygrothermal behaviour

Product assessed	Assessment method	Requirement	Result
webertherm XM External Wall Insulation System	EAD 040089-00-0404, Section 2.2.2.2 Watertightness of the EWIS: Hygrothermal behaviour	– No blistering or peeling of any finishing coat – No detachment of the rendering system – No failure or cracking associated with joints between insulation boards – No cracking allowing water penetration to the insulating layer (normally ≤ 0.2mm)	Pass

Table 11 Watertightness – water penetration test

System assessed	Assessment method	Requirement	Result
webertherm XM External Wall Insulation System	EAD 040089-00-0404, Section 2.2.2.5 Watertightness of the EWIS: Simulated driven rain test in accordance with EN 12865 : 2002	No water penetration	Pass

8.3 Service life

8.3.1 Under normal service conditions, the system will have a service life of at least 30 years, provided any damage to the surface finish is repaired immediately and regular maintenance is undertaken, as described in section 9 of this Certificate.

8.3.2 Any render containing Portland cement may be subject to lime bloom. The occurrence of this may be reduced by avoiding application in adverse weather conditions. The effect is transient and less noticeable on lighter colours.

8.3.3 The finishes may become discoloured with time, the rate depending on the initial colour, the degree of exposure and atmospheric pollution, as well as the design and detailing of the wall. In common with traditional renders, discoloration by algae and lichens may occur in wet areas. The appearance may be restored by a suitable power wash or, if required, by over coating, provided the coating does not adversely affect the water vapour transmission or fire characteristics of the system. The advice of the Certificate holder must be sought as to the suitability of a particular system, but such advice is outside the scope of this Certificate.

8.3.4 To maintain a high-quality aesthetic appearance, it may be necessary to periodically overcoat the building using a suitable masonry coating. Care must be taken not to adversely affect the water vapour transmission or fire characteristics of the system. The advice of the Certificate holder must be sought as to the suitability of a particular system, but such advice is outside the scope of this Certificate.

PROCESS ASSESSMENT

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

9 Design, installation, workmanship and maintenance

9.1 Design

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

9.1.2 It is essential that the detailing techniques specified in this Certificate are carried out to a high standard if the ingress of water into the insulation is to be avoided and the full thermal benefit obtained from treatment with the system (eg the insulation must be protected by an overhang, and window sills should be designed and installed so as to direct water away from the building).

9.1.3 For improved thermal/carbon-emissions performance of the structure, the designer must consider additional/ alternative fabric and/or services measures.

9.1.4 New walls subject to national Building Regulations must be constructed in accordance with the relevant recommendations of:

- BS EN 1993-1-1 : 2005 and its UK National Annex
- BS EN 1993-1-3 : 2006 and its UK National Annex
- BS 8000-0 : 2014
- BS EN 10346 : 2015
- BS EN 634-2 : 2007.

9.1.5 New walls not subject to regulatory requirements must also be built in accordance with the Standards identified in section 9.1.4.

9.1.6 Movement joints must be incorporated into the system in line with existing movement joints in the building structure and in accordance with the Certificate holder's recommendations for the specific installation.

9.1.7 The designer must select a construction appropriate to the local wind-driven rain index, paying due regard to the design detailing, workmanship and materials to be used. The sheathing board must be of a suitable exterior grade with appropriately sealed joints, sealed penetrations, breather membrane and vapour control layers (VCL) where required. For guidance, examples of relevant detailing for external wall insulation system are given in SCI publication *P343 Insulated Render Systems Used with Light Steel Framing* (Steel Construction Institute, 2006).

9.1.8 The design of the structural frame of the building, including the sheathing boards, is the responsibility of the building designer and is outside the scope of this Certificate. However, the structural frame (and sheathing-associated fixings) must be structurally adequate and must be designed to resist all permanent and variable load actions applied to the system (see Table 9 for the non-exhaustive minimum specifications for system installations relating to the light gauge steel and sheathing). It is essential that appropriate movement joints are incorporated into the system (see section 9.1.6).

Table 12 Minimum steel frame construction requirements

Item	Characteristics	Specifications
Steel-framed structure(1)	Cold-formed steel frame members must be in accordance with BS EN 1993-1-3 : 2006. The steel structure studs must be at least 1.2 mm thick, with 50 mm (minimum) flanges.	In accordance with BS EN 10346 type S 320 GD +Z275
Sheathing board (cement particle board – CPB)(1)(2)	12 mm minimum thickness	Manufactured to BS EN 634-2 : 2007 Class 1, with a minimum density of 450 kg·m^{-3} and a reaction to fire classification of D-s2, d0(2) or better in accordance with BS EN 13501-1 : 2018

(1) These components are outside the scope of this Certificate.
(2) The board must be of an exterior grade, with the minimum acceptable specification as indicated in the above Table.

9.1.9 The system will improve the weather resistance of a wall and provide a decorative finish. However, no cavity is provided between the insulation and sheathing board/breather membrane and care must be taken to ensure that walls are adequately weathertight prior to application.

9.1.10 The effect of the system on the acoustic performance of a construction is outside the scope of this Certificate.

9.1.11 The fixing of sanitary pipework, plumbing, rainwater goods, satellite dishes, clothes lines, hanging baskets and similar items to the system is outside the scope of this Certificate.

9.1.12 External pipework and ducts must be removed before installation, and alterations made to underground drainage to accommodate repositioning of the pipework to the finished face of the system. The Certificate holder may advise on suitable fixing methods, but these are outside the scope of this Certificate.

9.1.13 The designer must ensure that windows, doors, flashings and other similar items have been specifically designed for use with this type of system; particular attention must be paid to the prevention of water ingress into the system. For example, junctions between the system and window and door openings must avoid creating a direct path that could facilitate the transfer of water from the external surface of the wall into the wall construction or to the internal surface. In addition, opening and penetration details must be designed to deflect water away from the insulation and onto the external face of the wall.

9.1.14 The detailed provisions given in the documents supporting the national Building Regulations when the system is installed in close proximity to certain flue pipes and/or heat-producing appliances must be followed.

Surface condensation

9.1.15 In England and Wales, walls will adequately limit the risk of surface condensation when the thermal transmittance (U value) does not exceed 0.7 $W \cdot m^{-2} \cdot K^{-1}$ at any point and the junctions with other elements and openings comply with section 6.2.2 of this Certificate.

9.1.16 In Scotland, walls will adequately limit the risk of surface condensation when the thermal transmittance (U value) does not exceed 1.2 $W \cdot m^{-2} \cdot K^{-1}$ at any point.

Resistance to weather

9.1.17 The system will provide a degree of protection against water ingress. However, care must be taken to ensure that substrate walls are adequately weather resistant prior to application of the system. The system must only be installed where there are no signs of dampness on the inner surface of the substrate other than those caused solely by condensation.

9.1.18 Designers and installers must take particular care in detailing around openings, penetrations and movement joints to minimise the risk of water ingress.

9.1.19 The guidance given in BRE Report BR 262 : 2002 must be followed in connection with the weathertightness of the constructions. The designer must select a construction appropriate to the local wind-driven rain index, paying due regard to the design detailing, workmanship and materials to be used.

9.1.20 At the top of walls, the system must be protected by an adequate overhang or other detail designed for use with this type of system (see Annex A). On flat roofs and parapet walls, waterproofing and drainage must be adequate and in good condition.

Structural performance

9.1.21 The Certificate holder is ultimately responsible for the design of the system and it is the responsibility of the company installing the system to accurately follow the installation instructions. The Certificate holder must also verify that a suitably experienced and qualified individual (with adequate professional indemnity) establishes that:

- the wind loads on the different zones of the building's elevation for the specific geographical location have been calculated correctly
- the system can adequately resist and safely transfer the calculated loads, accounting for all possible failure modes, to the substrate wall and supporting structure .

9.1.22 The substrate and supporting structure must be capable of transferring all additional loading due to the installation of the system, to the ground in a satisfactory manner. The adequacy of the substrate and supporting structure must be verified by the person or party responsible for the global stability of the building to which the system is applied. Any defects must be made good prior to the system being installed.

9.1.23 The wind loads on the walls must be calculated by a suitably experienced and competent individual, taking into account all relevant factors such as location and topography, in accordance with BS EN 1991-1-4 : 2005 and its UK National Annex. All of the factors affecting wind load on each elevation and specific zones of the building must be considered. In accordance with BS EN 1990 : 2022 and its UK National Annex, a partial factor of 1.5 must be applied to the calculated characteristic wind pressure values to establish the design wind load to be resisted by the system.

9.1.24 Installations correctly designed in accordance with this Certificate will safely accommodate the applied loads due to the self-weight of the system, wind and impact.

9.1.25 Negative wind load is transferred to the substrate wall via:

- the bond between the insulation and render system (see section 1.1.2)
- the pull-out resistance of the fixing from the substrate sheathing board (see section 1.1.3)
- the pull-through resistance of the fixing (see section 1.1.4).

9.1.26 The horizontal local deflection of the supporting structure due to variable loads must be within acceptable limits. The suggested limit for the maximum horizontal local deflection is the height of the storey/360, in accordance with the UK National Annex to BS EN 1993-1-1 : 2022. The Certificate holder may advise on the limiting deflection for the system, but such advice is outside the scope of this Certificate.

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 Weather conditions must be monitored to ensure correct application and curing conditions. If exposure to frost is likely or in damp/wet conditions, the render must be protected. The system must not be applied at temperatures below 5°C or above 25°C.

9.2.3 All rendering must be in accordance with the relevant recommendations of BS EN 13914-1 : 2016.

9.2.4 Installation must be carried out in accordance with this Certificate and the Certificate holder's instructions. A summary of instructions and guidance is provided in Annex A.

9.3 Workmanship

Practicability of installation was assessed on the basis of the Certificate holder's information. To achieve the performance described in this Certificate, the system must only be installed by competent external wall insulation installers who have been trained and approved by the Certificate holder. Such an installer is a company:

- employing operatives who have been trained and approved by the Certificate holder to install the system
- which has undertaken to comply with the Certificate holder's application procedure, containing the requirement for each application team to include at least one member-operative trained by the Certificate holder
- subject to at least one inspection per annum by the Certificate holder to ensure suitable site practices are being employed. This may include unannounced site inspections.

Note: The BBA operates a UKAS-accredited Approved Installer Scheme for external wall insulation; details of approved installer companies are included on the BBA website (www.bbacerts.co.uk).

9.4 Maintenance and repair

9.4.1 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 (for example, between the insulation system and window and door frame).

9.4.2 Damaged areas must be repaired using the appropriate components and procedures detailed in the Certificate holder's installation instructions and in accordance with BS EN 13914-1 : 2016.

10 Manufacture

10.1 The production processes for this system 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 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 carry out 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 system components are delivered to site in the packaging and quantities listed in Table 11. Each package carries the system identification and batch number.

Table 13 System component supply details

Component	Quantity/packaging
insulation	Shrink-wrapped in polythene on pallets
weberend LAC adhesive and basecoat	20 kg bags
weberend LAC rapid adhesive and basecoat	20 kg bags
weberwall brick external adhesive	20 kg bags
weber mesh	1 m wide by 50 m lengths
weberend PTC	25 kg bags
weber PR310	10 litre containers
weber dry-dash aggregate	25 kg bags
weberplast TF	15 kg plastic pails
webersil TF	15 kg plastic pails
webermineral TF	20 kg bags
weberwall brick slips	boxed by manufacturer
weberwall brick pointing mortar	25 kg bags
mechanical fixings	boxed by manufacturer, 100 per box

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 insulation must be stored on a firm, clean, level base, off the ground and under cover until required for use. Care must be taken when handling to avoid damage.

11.2.2 The insulation must be stored off the ground on a firm, clean, level base and under cover until required for use. Care must be taken when handling to avoid damage.

11.2.3 The powder and paste components must be stored in dry conditions between 5 and 30°C, off the ground and protected from moisture. Contaminated materials must be discarded.

11.2.4 The primer and finishes must be stored in a safe area, under cover, and protected from excessive heat and frost at all times.

11.2.5 Bagged aggregate must be stored in a dry location.

ANNEX A – SUPPLEMENTARY INFORMATION †

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

Construction (Design and Management) Regulations 2015
Construction (Design and Management) Regulations (Northern Ireland) 2016

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

CLP Regulation

The Certificate holder has taken the responsibility of classifying and labelling the components under the *GB CLG Regulation* and *CLP Regulation (EC) No 1272/2008 - classification, labelling and packaging of substances and mixtures*. Users must refer to the relevant Safety Data Sheet(s).

Management Systems Certification for production

The management system of Saint-Gobain Construction Products UK Limited t/a Saint-Gobain Weber has been assessed and registered as meeting the requirements of BS EN ISO 9001 : 2015 by BSI (Certificates FM 641234 and FM 01209).

Additional information on installation

A.1 Site survey and preliminary work

A.1.1 A pre-installation survey of the property must be carried out to determine suitability for treatment and the need for any necessary repairs to the building structure before application of the system. A specification is prepared for each elevation of the building indicating:

- the position of beads
- detailing around windows, doors and at eaves
- damp-proof course (DPC) level
- exact position of expansion joints, if required
- areas where flexible seal must be used
- any alterations to external plumbing, if required
- the position of fire and cavity stop barriers.

A.1.2 The survey must include tests conducted on the external surface of the sheathed structure of the building by the Certificate holder or their approved installers (see section 9.3) to determine the pull-out resistance of the proposed mechanical fixings for the substrate to withstand the building's expected wind loading, based on calculations using the fixing's pull-off resistance test data. In addition, the type and minimum number of fixings are selected (see section 1.1.3).

A.1.3 Surfaces must be sound, clean and free from loose material. The flatness of surfaces must be checked; this may be achieved using a straight edge spanning the storey height. Any excessive irregularities, ie greater than 10mm in one metre, must be made good prior to installation to ensure that the insulation slabs are installed with a smooth, in-plane finished surface.

A.1.4 On existing buildings, purpose-made window sills must be fitted to extend beyond the finished face of the system. New buildings must incorporate suitably deep sills (see Figure 10).

A.1.5 In new buildings, internal wet work (eg screed or plastering) must be completed and allowed to dry prior to the application of the system.

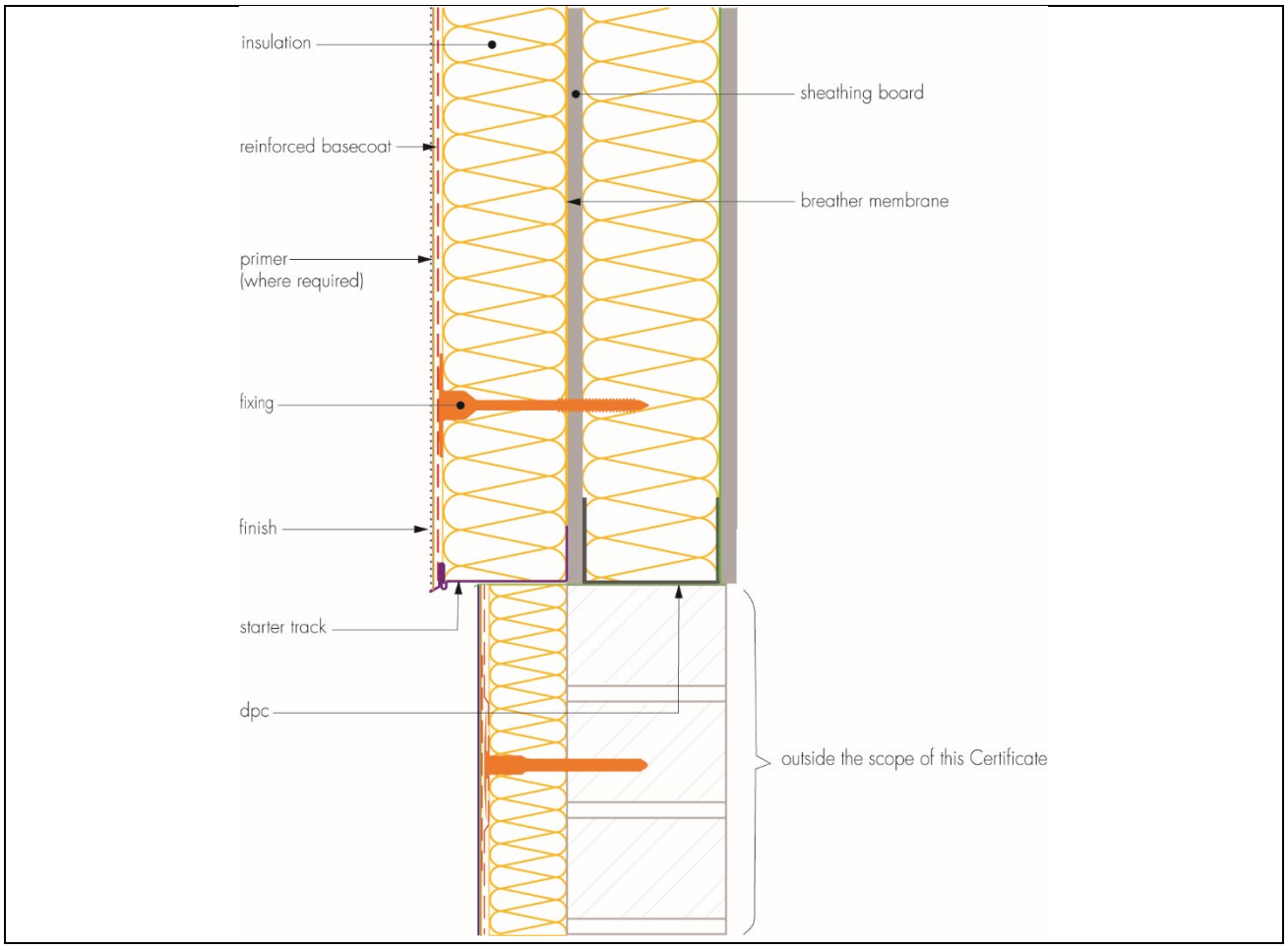
A.1.6 All modifications, such as alterations to external plumbing and necessary repairs to the building structure, must be completed before installation of the system commences.

A.2 Installation

Insulation slabs

A.2.1 The base profile is secured to the external wall above the DPC using mechanical fixings at maximum 700 mm centres. Base profile connectors are installed at all profile joints. Extension profiles are fixed at the front lip of the base rail or stop end profile as appropriate. Profiles and expansion joints are fitted as specified (see Figure 2).

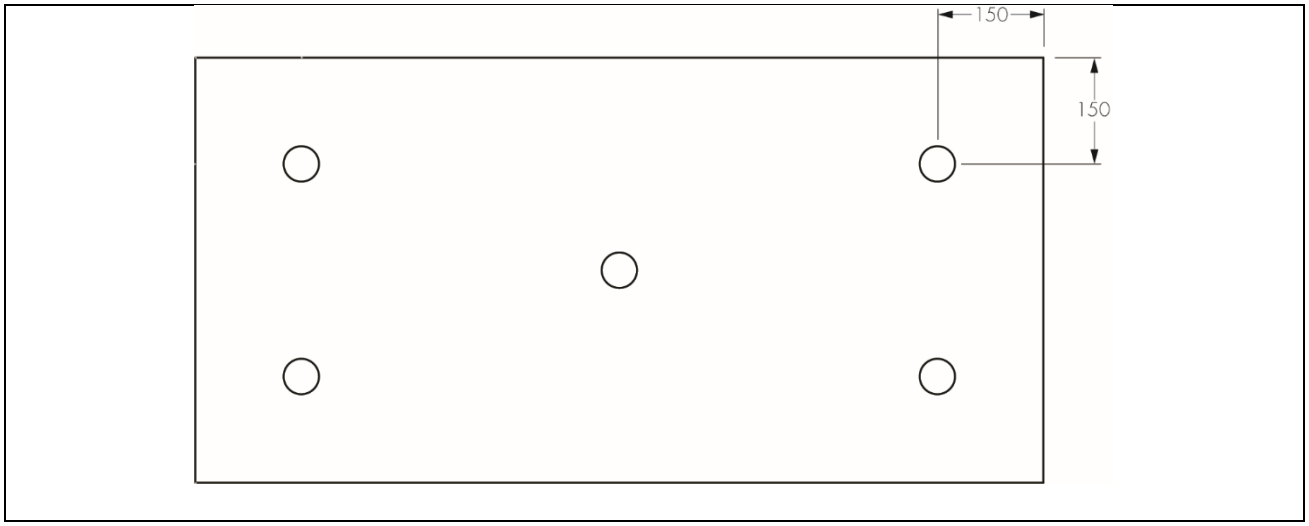
Figure 2 Typical section at base profile



A.2.2 The first run of insulation slabs is positioned on the base profile. Care must be taken to ensure that all slab edges are butted tightly together, and that the Dual Density slab is correctly orientated with the denser layer facing outwards (see manufacturer's installation instructions) . Alignment must be checked as work proceeds.

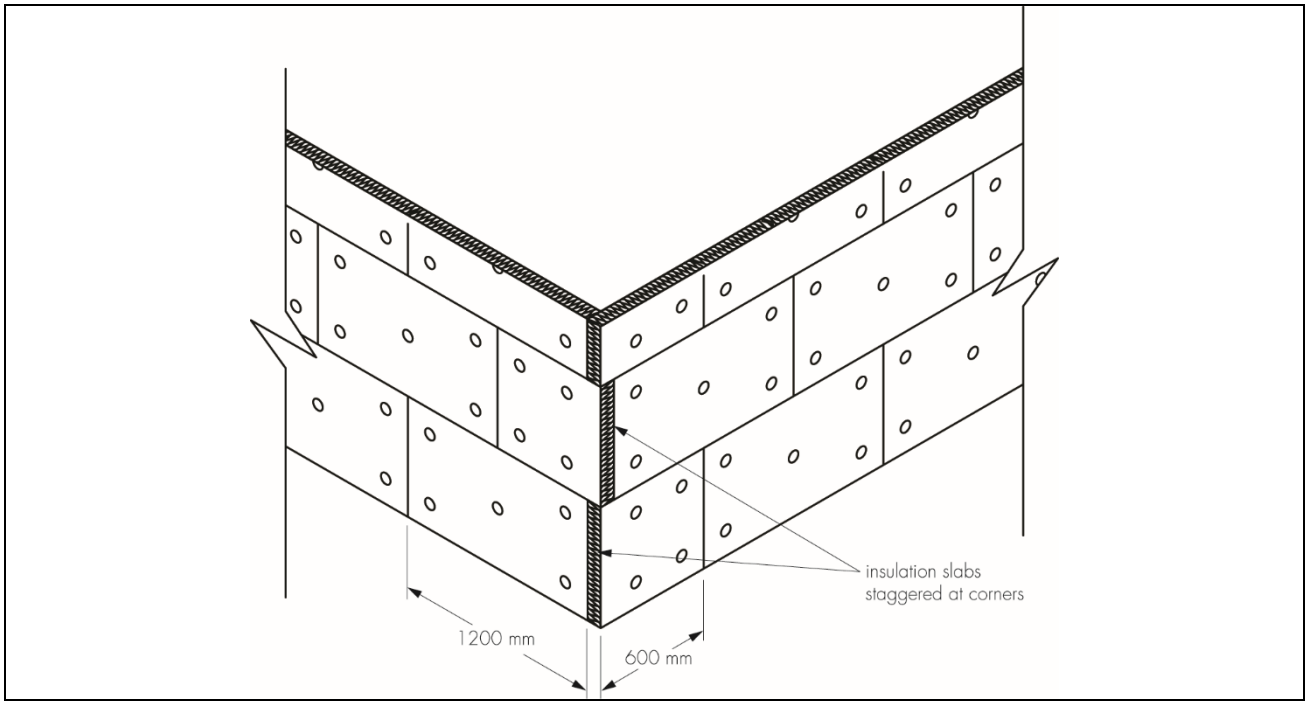
A.2.3 Details of mechanical fixings (including their layout) are specified in the project-specific design requirements based on pull-out test results, substrate type and wind-loading data. Holes are drilled through the insulation slab into the substrate wall and mechanical fixings (minimum of 7 per square metre) are screwed firmly into place, following the fixing pattern shown in Figure 3. If required, extra fixings can be applied at the edge zones to satisfy the wind load conditions.

Figure 3 Fixing pattern



A.2.4 Subsequent rows of slabs are positioned so that the vertical slab joints are staggered and overlapped at the building corners (see Figure 4).

Figure 4 Slab layout on the wall and at corners of a building



A.2.5 Joints between slabs up to 10 mm can be filled with slivers of insulation slab. Gaps greater than 10 mm should be closed by repositioning or, where appropriate, by cutting slabs to fit.

A.2.6 To fit around details such as doors and windows, insulation slabs may be cut with a sharp knife or a fine-tooth saw. Purpose-made window sills, flashing and seals designed to prevent or manage water ingress must be fitted. The performance of these components is outside the scope of this Certificate.

A.2.7 At all locations where there is a risk of insulant exposure (eg window reveals or eaves), the system must be protected, eg by an adequate overhang or by purpose made sub-sills, seals or flashing.

A.2.8 Building corners, door and window heads and jambs are formed using corner profiles, in accordance with the Certificate holder's instructions. Corner profiles must be fixed to all building corners.

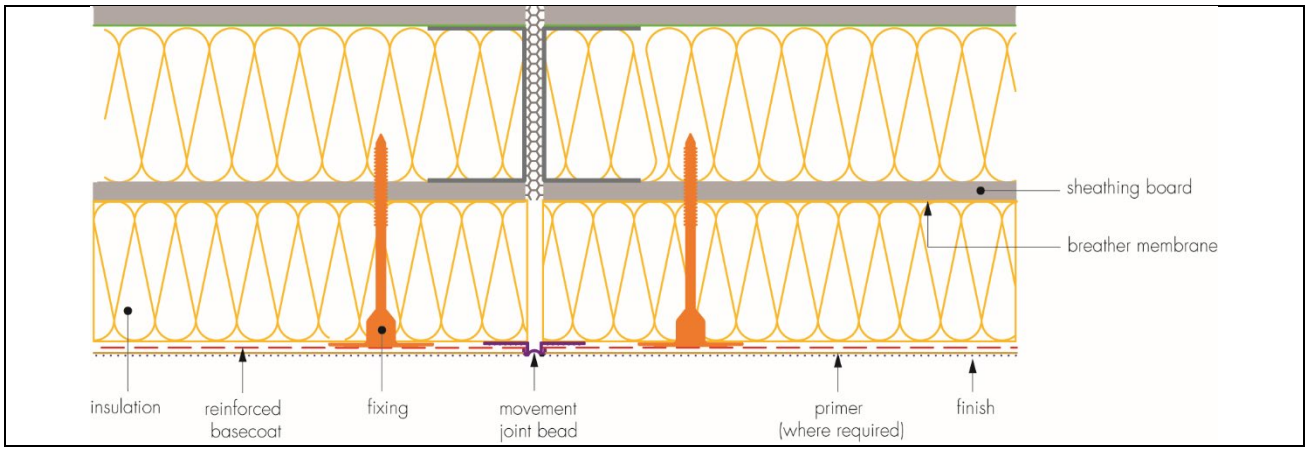
A.2.9 Installation continues until the whole wall is completely covered including, where appropriate, the building soffits.

A.2.10 Window and door reveals should be insulated to minimise the effects of cold bridging. Where clearance is limited, strips of insulation should be installed to suit available margins and details.

Movement joints

A.2.11 Generally, movement joints are not required in the system but, if it is already incorporated in the substrate, a movement joint must be provided through the system (see Figure 5).

Figure 5 Movement joint detail

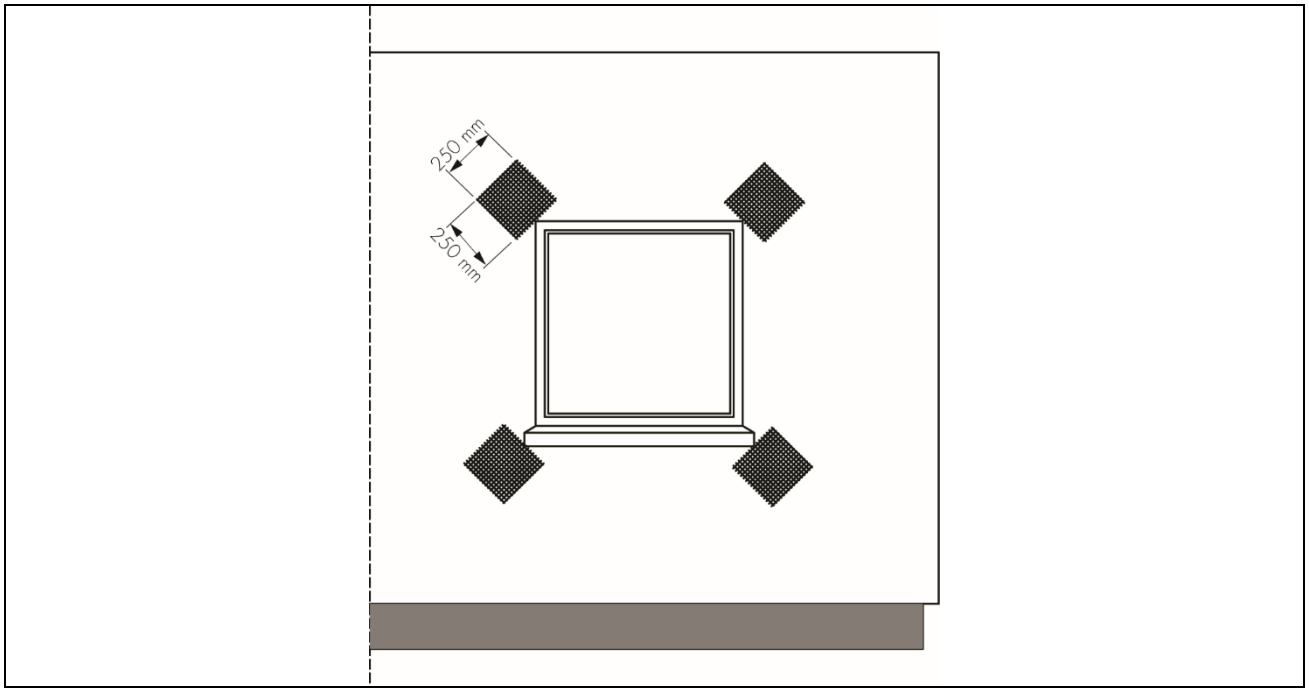


Application of the basecoat and reinforcing mesh

A.2.12 The basecoats are prepared (20 kg of weberend LAC, weberend LAC rapid or weberwall brick external adhesive to 5 litres of potable water).

A.2.13 To provide the necessary reinforcement, stress patches of reinforcing mesh (approximate size 250 by 250 mm) are applied with basecoat, diagonally over the insulation slabs at the corners of openings so that they extend equally either side of the corner (see Figure 6). Angle beads and stop beads are positioned in accordance with the Certificate holder's installation instructions.

Figure 6 Additional reinforcement at openings



A.2.14 The basecoat is applied in two passes. The first layer of basecoat is applied progressively by trowel or spray machine to the surface of the dry insulation to achieve an approximate thickness of 3 mm.

A.2.15 Reinforcing mesh is applied and immediately embedded into the basecoat using the trowel, and overlapped at all mesh joints by at least 100 mm. For systems other than the weberwall brick system, a further layer of basecoat is applied to give an overall minimum thickness of 6 mm, and the surface ruled level. For synthetic finish applications, the basecoat must be finished with a sponge float as the basecoat starts to 'take up', working in a figure-of-eight motion. The basecoat must be allowed to dry/cure (minimum 24 hours for weberend LAC rapid basecoat and a minimum of three days for weberend LAC basecoat) before the application of the primer/finishing coat (weberend LAC rapid does not require a primer).

A.2.16 For the weberwall brick system, a further 3 mm thick layer of weberwall brick external adhesive is applied over the wet first layer of basecoat to give an overall minimum thickness of 6 mm, using a 10 mm square notched trowel to comb through the adhesive to prepare the wet adhesive for application of weberwall brick.

A.2.17 It is important that the reinforcing mesh is free of wrinkles and completely covered, and that the required minimum thickness of basecoat is achieved.

Application of finishing coats

A.2.18 When applicable, the primer coat (weber PR310) is applied by brush, roller or spray and allowed to dry prior to the application of the render finish (see Table 1).

A.2.19 Prior to applying the finishes, the relevant seals are positioned and installed at all openings (eg windows and doors), overhanging eaves, gas and electric meter boxes, wall vents or where the render abuts any other building material or surface, unless a proprietary sealing bead has been installed prior to application of the basecoat render.

A.2.20 The finishes are then applied, using the methods described for the specific finishing coats.

weberplast TF and webersil TF

A.2.21 Where used, weberplast TF and webersil TF must each be mixed thoroughly before application. The chosen finish is applied with a steel trowel to a uniform thickness, and immediately worked with a thin plastic or wooden float to produce the desired texture.

webermineral TF

A.2.22 The webermineral TF is prepared and mixed to a smooth, workable consistency then trowel-applied onto the basecoat to a thickness of approximately 1.5 mm.

weberwall brick slips with weberwall brick pointing mortar

A.2.23 The weberwall brick is immediately pressed into the wet adhesive, ensuring the mesh is fully immersed in adhesive. Weberwall brick pointing mortar is then applied in joints once the adhesive has set in accordance with the Certificate holder's instructions. Excess mortar is removed with a dry brush.

General guidelines

A.2.24 Care should be taken in the detailing of the system around features such as openings, projections and at eaves (see Figures 7 to 10) to ensure adequate protection against water ingress and to limit the risk of water penetrating the system.

A.2.25 The system must be allowed to dry thoroughly before painting any of the surrounding features.

A.2.26 At the tops of walls, the system must be protected by a coping, adequate overhang or adequately sealed, purpose-made flashing.

Figure 7 Typical detail – eaves

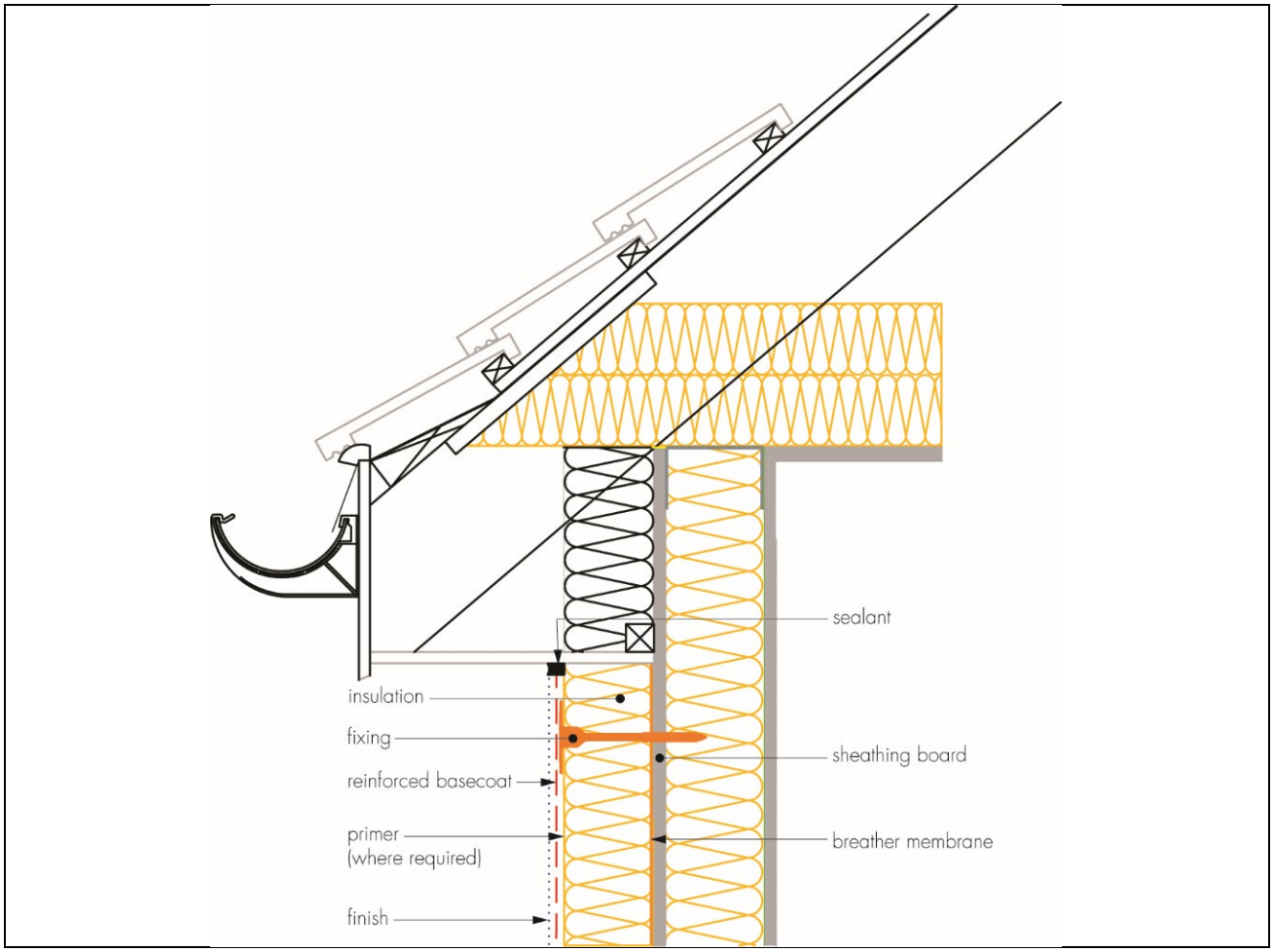


Figure 8 Insulated window head details

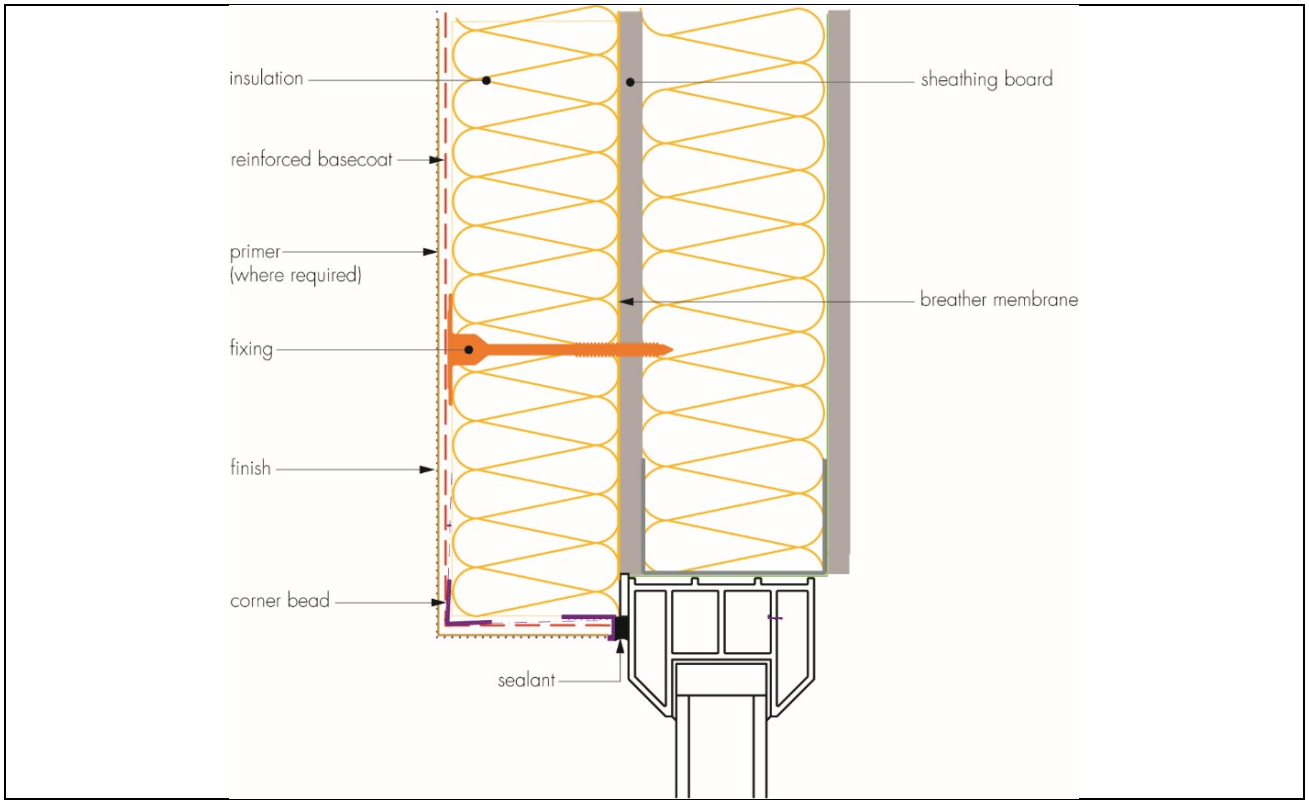


Figure 9 Typical window reveal detail

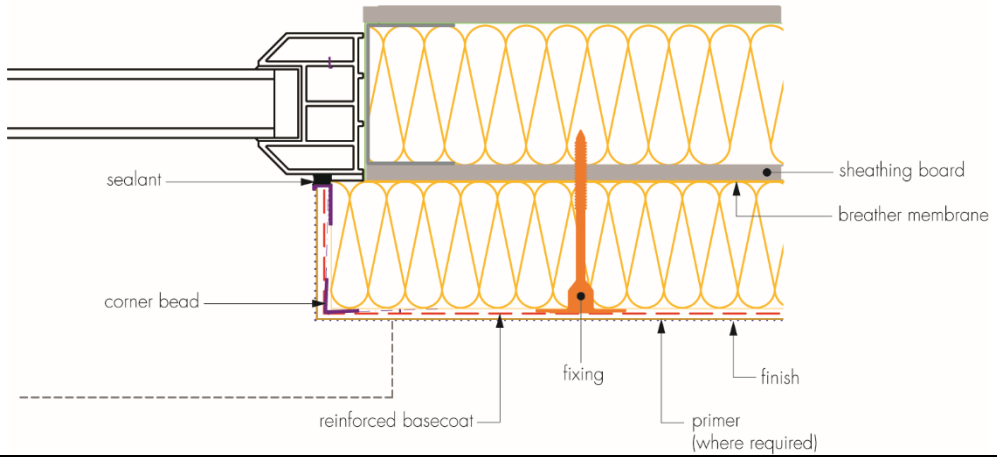
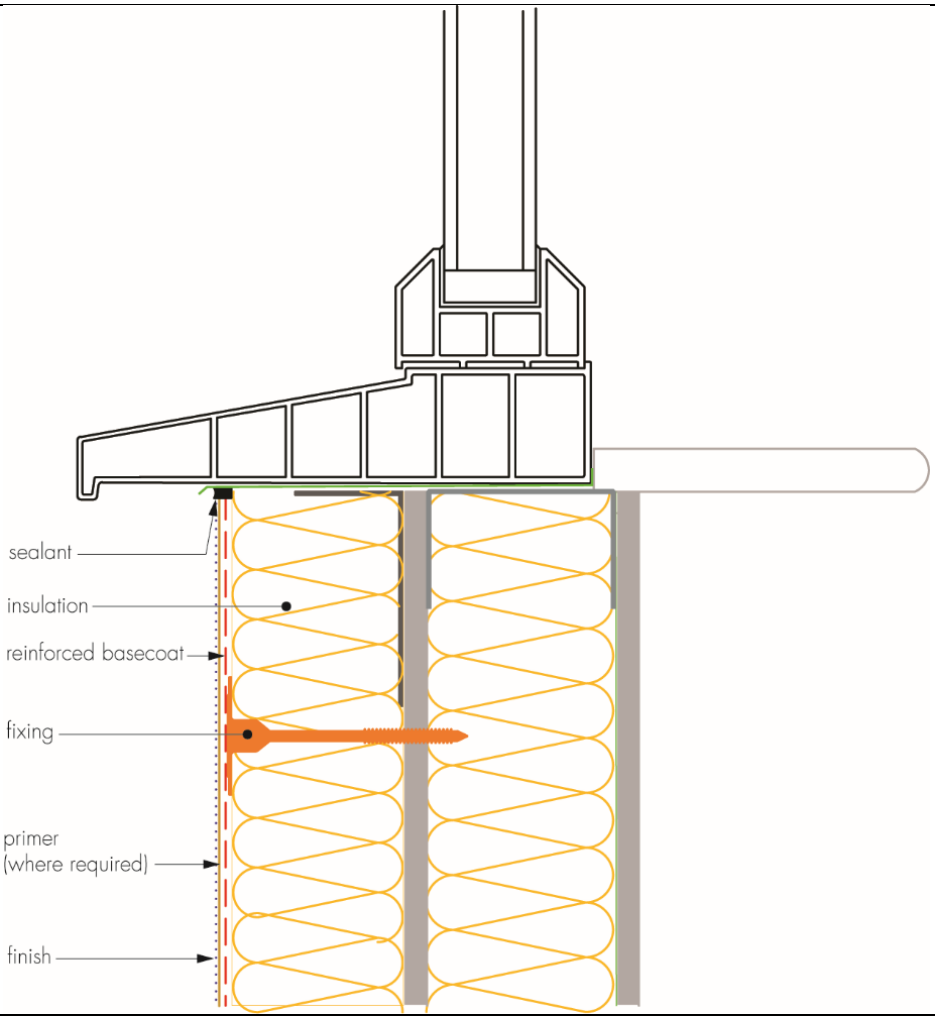


Figure 10 Window sill details



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BRE Report BR 443 : 2019 *Conventions for U-value calculations*

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BS 8000-0 : 2014 + A1 : 2023 *Workmanship on construction sites – Introduction and general principles*

BS EN 634-2 : 2007 *Cement-bonded particleboards — Specifications — Requirements for OPC bonded particleboards for use in dry, humid and external conditions*

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NA to BS EN 1993-1-1 : 2005 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 — General rules — Supplementary rules for cold-formed members and sheeting*
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BS EN 10346 : 2015 *Continuously hot-dip coated steel flat products for cold forming - Technical delivery conditions*

BS EN 13162 : 2012 *Thermal insulation products for buildings — Factory made mineral wool (MW) products — Specification*

BS EN 13501-1 : 2018 *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 ISO 6946 : 2017 *Building components and building elements — Thermal resistance and thermal transmittance — Calculation method*

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

BS EN ISO 10456 : 2007 *Building materials and products — Hygrothermal properties — Tabulated design values and procedures for determining declared and design thermal values*

BS EN ISO 11600 : 2003 + A1 : 2011 *Building construction — Jointing products — Classification and requirements for sealants*

EOTA TR051 : 2016 *Recommendations for job-site tests of plastic anchors and screws*

EAD 040083-00-0404 *External Thermal Insulation Composite Systems (ETICS) with Rendering*

EAD 330196-00-0604 : 2016 *Plastic anchors for fixing of ETICS with rendering*

Conditions of Certificate

Conditions

1 This Certificate:

- relates only to the product that is named and described on the front page
- is issued only to the company, firm, organisation or person named on the front page – no other company, firm, organisation or person may hold or claim that this Certificate has been issued to them
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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.

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