

Greenspan Products Limited

Ballynahill
Co Limerick
Ireland

Tel: 00 353 698 2222 Fax: 00 353 698 2226
e-mail: info@greenspan.ie
website: www.greenspan.ie



Agrément Certificate
09/4623
Product Sheet 1

GREENSPAN CLADDING SYSTEM

AQUAPANEL EXTERIOR CEMENT BOARD SYSTEM

PRODUCT SCOPE AND SUMMARY OF CERTIFICATE

This Certificate of Confirmation relates to the Aquapanel Exterior Cement Board System for use as an exterior wall panel system on timber-frame and steel-frame buildings of up to 18 m in height.

AGRÉMENT CERTIFICATION INCLUDES:

- factors relating to compliance with Building Regulations where applicable
- factors relating to additional non-regulatory information where applicable
- independently verified technical specification
- assessment criteria and technical investigation
- design considerations
- installation guidance
- regular surveillance of production
- formal three-yearly review.



KEY FACTORS ASSESSED

Strength and stability – the system can accept surface loadings likely to be met in the UK (see section 5).

Behaviour in relation to fire – the Aquapanel Exterior Cement Board is non-combustible and has a spread of fire rating equivalent to Class 0 or 'low risk'. The renders have the following classifications to EN 13501-1 : 2007: Aquapanel Exterior Basecoat A1; Aquapanel Mineralic Finish A1; Aquapanel Exterior Silicon Synthetic Resin Render E and Aquapanel Exterior Dispersion Render E (see section 6).

Weathertightness – the system has adequate details to resist the passage of moisture from the ground or from weather (see section 8).

Durability – the system is durable and can be expected to have a service life in excess of 30 years (see section 10).

The BBA has awarded this Agrément Certificate to the company named above for the system described herein. The 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

A handwritten signature in black ink, appearing to read 'Simon Wroe'.

Simon Wroe
Head of Approvals – Materials

A handwritten signature in black ink, appearing to read 'Greg Cooper'.

Greg Cooper
Chief Executive

Date of First issue: 27 February 2009

Certificate amended on 23 March 2009 to include change of Certificate holder and clarify details of the UK marketing agent.

The BBA is a UKAS accredited certification body – Number 113. The schedule of the current scope of accreditation for product certification is available in pdf format via the UKAS link on the BBA website at www.bbacerts.co.uk

Readers are advised to check the validity and latest issue number of this Agrément Certificate by either referring to the BBA website or contacting the BBA direct.

British Board of Agrément
Bucknalls Lane
Garston, Watford
Herts WD25 9BA

tel: 01923 665300
fax: 01923 665301
e-mail: mail@bba.star.co.uk
website: www.bbacerts.co.uk

©2009

Regulations

In the opinion of the BBA, the Aquapanel Exterior Cement Board System, if used in accordance with the provisions of this Certificate, will meet or contribute to meeting the relevant requirements of the following Building Regulations:



The Building Regulations 2000 (as amended) (England and Wales)

| | | |
|--------------|--------------|--|
| Requirement: | A1 | Loading |
| Comment: | | The system is acceptable for use as set out in sections 5.1 to 5.6 of this Certificate. |
| Requirement: | B4(1) | External fire spread |
| Comment: | | The system meets the Class 0 requirements. See sections 6.1 to 6.6 of this Certificate. |
| Requirement: | C2(b)(c) | Resistance to moisture |
| Comment: | | The system will meet the requirements. See section 8 of this Certificate. |
| Requirement: | Regulation 7 | Materials and workmanship |
| Comment: | | The system is acceptable. See sections 10.1 and 10.2 and the <i>Installation</i> part 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 a construction satisfying this Regulation. See sections 9, 10.1, 10.2 and the <i>Installation</i> part of this Certificate. |
| Regulation: | 9 | Building standards – construction |
| Standard: | 1.1(a)(b) | Structure |
| Comment: | | The system is acceptable, with reference to clause 1.1.1 ⁽¹⁾⁽²⁾ . See sections 5.1 to 5.6 of this Certificate. |
| Standard: | 2.6 | Spread to neighbouring buildings |
| Comment: | | The system can contribute to satisfying this Standard, with reference to clause 2.6.4 ⁽¹⁾⁽²⁾ . See sections 6.1 to 6.6 of this Certificate. |
| Standard: | 2.7 | Spread on external walls |
| Comment: | | The system can contribute to satisfying this Standard, with reference to clause 2.7.1 ⁽¹⁾⁽²⁾ . See sections 6.1 to 6.6 of this Certificate. |
| Standard: | 3.10 | Precipitation |
| Comment: | | The system will contribute to meeting this Standard, with reference to clauses 3.10.1 ⁽¹⁾⁽²⁾ to 3.10.3 ⁽¹⁾⁽²⁾ . See section 8 of this Certificate. |
| Regulation: | 12 | Building standards – conversions |
| Comment: | | All comments given for this system under Regulation 9, 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) 2000 (as amended)

| | | |
|-------------|-------|--|
| Regulation: | B2 | Fitness of materials and workmanship |
| Comment: | | The system is acceptable. See sections 10.1 and 10.2 and the <i>Installation</i> part of this Certificate. |
| Regulation: | B3(2) | Suitability of certain materials |
| Comment: | | The system is acceptable. See section 9 of this Certificate |
| Regulation: | C4 | Resistance to ground moisture and weather |
| Comment: | | The system will contribute to meeting this Regulation. See section 8 of this Certificate. |
| Regulation: | D1 | Stability |
| Comment: | | The system is acceptable as set out in section 5.1 to 5.6 of this Certificate. |
| Regulation: | E5 | External fire spread |
| Comment: | | The system meets the Class 0 requirements. See sections 6.1 to 6.6 of this Certificate. |

Construction (Design and Management) Regulations 2007

Construction (Design and Management) Regulations (Northern Ireland) 2007

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

See sections: 2 *Delivery and site handling* (2.1 and 2.2).

Non-regulatory Information

NHBC Standards 2008

NHBC accepts the use of the Aquapanel Exterior Cement Board System, when installed and used in accordance with this Certificate, in relation to *NHBC Standards, Part 6 Superstructure (excluding roofs)*, Chapters 6.2 *External timber framed walls* and 6.10 *Light steel framed walls and floors*.

Zurich Building Guarantee Technical Manual 2007

In the opinion of the BBA, the Aquapanel Exterior Cement Board System, when installed and used in accordance with this Certificate, satisfies the requirements of the *Zurich Building Guarantee Technical Manual, Section 4 Superstructure, Sub-section External walls — render/cladding/curtain walling*.

General

The products are marketed by Greenspan UK Ltd on behalf of Greenspan Products Limited (the holder of this Certificate) from Concorde House, Trinity Park, Solihull, Birmingham B37 7UQ. Tel: 0121-635 5502, Fax: 0121-635 5503, e-mail: sales@greenspanuk.com, website: www.greenspanuk.com

This Certificate is a Confirmation of Irish Agrément Certificate IAB 06/0161 issued by the Bord Agrément na hEireann to Greenspan Products Limited.

Technical Specification

1 Description

1.1 The Aquapanel Exterior Cement Board System consists of aggregated Portland cement board, reinforced with polymer-coated glassfibre mesh, coated with Aquapanel render to form a ventilated system in timber-framed and steel-framed buildings.

1.2 Aquapanel Exterior Cement Boards have the nominal characteristics of:

| | |
|--|---------------------------|
| Width (mm) | 900 |
| Length (mm) | 1200, 1250, 2400 and 2500 |
| Thickness (mm) | 12.5 |
| Nominal weight (kgm ⁻²) | 16 |
| Nominal dry density (kgm ⁻²) | 1150. |

1.3 The system comprises the following components:

- Aquapanel Exterior Basecoat — a polymer-modified Portland cement material
- Aquapanel Exterior Reinforcing Mesh — a wide-meshed glass reinforcing fabric
- Aquapanel Exterior Primer — a synthetic dispersant to reduce suction variations
- Aquapanel Exterior Silicon Synthetic Resin Render/Aquapanel Exterior Dispersion Render — coloured renders to produce a range of textured finishes
- Aquapanel Mineralic Finish — for use on buildings exceeding two storeys in height
- Aquapanel Façade Fixing Screws — stainless steel screws (40 mm long by 3.05 mm shank diameter) to fix panels to battens
- nails — type Haubold nailscrew RNC-S 28/45 N/S TX 1.5 RF (2.8 mm by 45 mm)
- staples — Type Haubold SD 91050 CRF
- Aquapanel Exterior Reinforcing Tape — for reinforcement of the mortar joints between panels
- Aquapanel Joint Filler — a cement-bound filler.

1.4 Quality control is carried out on raw materials and on the finished products. Quality control checks on the finished boards include:

- dimensions
- density
- flexural strength
- compressive strength.

2 Delivery and site handling

2.1 Aquapanel Exterior Cement Boards are shrink-wrapped with polythene and palletised, 25 to 35 sheets per pallet and should be stored inside (where possible) and stacked on a level base with supports every 450 mm.

2.2 All component packs of the system carry the manufacturer's name, the BBA identification mark, including the number of this Certificate and instructions for storage and installation. Details of packaging and weights of other components of the system are given in Table 1.

Table 1 Packaging and weights

| Component | Dimensions/quantity | Weight (kg) | Packaging |
|---|---------------------|-------------|-----------|
| Aquapanel Exterior Basecoat | – | 25 | bags |
| Aquapanel Exterior Silicon Synthetic Resin Render | – | 25 | pails |
| Aquapanel Exterior Dispersion Render | – | 25 | pails |
| Aquapanel Mineralic Finish | – | 30 | bags |
| Aquapanel Exterior Primer | – | 25 | pails |
| Aquapanel Joint Filler | – | 10 | bags |
| Aquapanel Exterior Reinforcing Mesh | 50 m x 1 m x 0.8 m | – | rolls |
| Aquapanel Exterior Reinforcing Tape | 50 m/25 | – | rolls |

Assessment and Technical Investigations

The following is a summary of the assessment and technical investigations carried out on the Aquapanel Exterior Cement Board System.

Design Considerations

3 General

3.1 The Aquapanel Exterior Cement Board System forms a satisfactory external wall suitable for use as an exterior wall cladding in timber-frame and steel-frame houses of up to 18 m in height.

3.2 The design should include:

- a ventilated and drained cavity to ensure that the timber-frame structure is protected from moisture from wind-driven rain in the event of unexpected failure of the cladding envelope and inclusion of insect guards to all ventilation openings
- effective detailing around window openings to ensure that wind-driven rain is excluded from the hidden timbers in the surround and from the cavity
- an effective vapour control layer on the inside, to ensure the timber-frame structure is protected.

3.3 The system should to be kept above damp-proof course level and by a minimum of 150 mm above ground level.

4 Practicability of installation

The system is suitable for installation by cladding contractors provided they have undergone suitable training. The Certificate holder can provide advice on installation, if required.

5 Strength and stability



5.1 Aquapanel Exterior Cement Boards have adequate strength and can be used anywhere in the UK, without loss of serviceability.

5.2 A suitably qualified chartered engineer must check the design and installation of the cladding.

5.3 The sub-frame and the support rails should be designed to limit mid-span deflections to $L/200$, and cantilever deflections to $L/150$.

5.4 The supporting wall must be able to take the full wind as well as any racking loads. No contribution from the cladding system may be assumed in this regard.

5.5 Wind loads should be calculated in accordance with BS EN 1991-1-4 : 2005 or BS 6399-2 : 1997. The higher-pressure coefficients applicable to corners of buildings should be used.

5.6 Aquapanel Exterior Cement Boards are capable of withstanding light impacts and can be used in areas are, such as detailed under categories C to F in Table 2 of BS 8200 : 1985, which is reproduced (in part) in Table 2.

Table 2 Location areas

| Category | Description | Examples | |
|----------|--|---|--|
| C | Accessible mainly to those with some incentive to exercise care. Some chance of accident occurring and of misuse | Walls adjacent to private open gardens. Back walls of balconies | Zone of wall up to 1.5 m above pedestrian or floor level |
| D | Only accessible, but not near a common route, to those with high incentive to exercise care. Small chance of accident occurring or of misuse | Walls adjacent to small fenced decorative gardens with no through paths | |
| E | Above zone of normal impacts from people but liable to impacts from thrown or kicked objects | 1.5 m to 6 m above pedestrian or floor level in public areas | |
| F | Above zone of normal impacts from people but not liable to impacts from thrown or kicked objects | Wall surfaces of high positions other than those defined in E above | |

6 Behaviour in relation to fire



6.1 Aquapanel Exterior Cement Boards are non-combustible and have a Class 0 or 'low risk' rating as defined in the various national Building Regulations.

6.2 Aquapanel Exterior Basecoat in white and the Aquapanel Mineralic Finish in white have a A1 classification in accordance with EN 13501-1 : 2007.

6.3 Aquapanel Exterior Silicon Synthetic Resin Render and Aquapanel Exterior Dispersion Render have an E classification in accordance with EN 13501-1 : 2007.

6.4 For resistance to fire, the performance of a wall incorporating the system can only be determined by tests from a suitably accredited laboratory, and is not covered by this Certificate.

6.5 Cavity barriers should be incorporated behind the cladding as required under the national Building Regulations, but should not block essential ventilation pathways. Guidance on fire barriers can be found in BRE report (BR 135 : 2003) *Fire Performance of External Insulation For Walls of Multi-Storey Buildings*.

6.6 When installed into a timber-frame or steel-frame building the requirements of the relevant regulations should be followed:

England and Wales – Approved Document B.

Scotland – Regulation 9, Standards 2.6 and 2.7 with reference clauses 2.6.4⁽¹⁾⁽²⁾ and 2.7.1⁽¹⁾⁽²⁾ respectively.

(1) Technical Handbook (Domestic).

(2) Technical Handbook (Non-Domestic).

Northern Ireland – Technical Booklet E.

7 Proximity of flues

When installing the system in close proximity to certain flue pipes, the following provisions of the national Building Regulations should be met:

England and Wales – Approved Document J.

Scotland – Mandatory Standard 3.19, clauses 3.19.1⁽¹⁾⁽²⁾ to 3.19.4⁽¹⁾⁽²⁾ and 3.19.8⁽¹⁾⁽²⁾

(1) Technical Handbook (Domestic).

(2) Technical Handbook (Non-Domestic).

Northern Ireland – Technical Booklet L.

8 Weathertightness



The Aquapanel Exterior Cement Board System resists the passage of moisture from the ground or from weather. Guidance on recommended cavity widths is given in *NHBC Standards 2008, Part 6 Superstructure (excluding roofs)*, Chapters 6.2 *External timber framed walls* and 6.10 *Light steel framed walls and floors*.

9 Maintenance



Periodic inspections should be carried out to assess the need for cleaning, maintenance painting, localised repairs and element replacements, such as joint seals and fixings. Advice regarding the re-coating and maintenance procedures should be sought from the Certificate holder.

10 Durability



10.1 The durability and service life of the Aquapanel Exterior Cement Board System will depend upon the building location, immediate environment and intended use of the building.

10.2 Provided regular maintenance is carried out, as described in section 9, and in accordance with the Certificate holder's instructions, the Aquapanel Exterior Cement Board System can be expected to have a life in excess of 30 years when used in normal conditions encountered in the UK. However, the durability may be extended beyond this by periodic re-coating of the finish coating.

10.3 Any colour change will be slight and uniform on any one elevation, and the system should have a decorative life of approximately 20 years.

Installation

11 Site survey and preliminary work

11.1 A pre-installation survey should be carried out to determine suitability of the building for installation and any repairs that will be necessary prior to installation of the Aquapanel Exterior Cement Board System. A specification is prepared for each elevation of the building, including:

- detailing around windows, doors and at eaves
- any alterations to external plumbing
- areas where flexible sealants will be required
- the positions of fire barriers (where required)
- pull-out strength of the fixings used to secure the battens to the structure (where considered necessary by the supervising engineer).

11.2 The design of each installation must be checked by a suitably qualified engineer (or similarly competent person) who will need to take into account the nature and quality of the substrate, the location, the supporting structure and fixings. In the absence of a formal requirement a safety factor of 3 is used.

11.3 It is recommended that external plumbing be removed and alterations made to underground drainage, where appropriate, to accommodate repositioning on the finished face of existing buildings.

12 General

12.1 Installation of the Aquapanel Exterior Cement Board System should be carried out strictly in accordance with the provisions of this Certificate and the Certificate holder's instructions by trained and registered cladding contractors.

12.2 The level of supervision during installation of the system and the associated structure, must be sufficient to ensure the quality of workmanship described in BS 8200 : 1985.

12.3 The sub-frame to which the cladding is fixed must be structurally sound and constructed in accordance with the requirements of the relevant national Building Regulations and Standards (see sections 12.4 and 12.5).

12.4 Timber stud walls and timber support work must be structurally sound and have been designed and constructed in accordance with BS 5268-2 : 2002 and preservative treated in accordance with BS 5268-5 : 1989, BS 5589 : 1989 and BS EN 351-1 : 2007.

12.5 Galvanized steel framework must be structurally sound and designed and constructed in accordance with BS 5950-5 : 1998.

12.6 The system is capable of transmitting its self weight and wind load to the structure. The adequacy of fixing of the sub-frame to the structural frame for specific installations is outside the scope of this Certificate and must be verified by a suitably qualified engineer. Particular care is required around window and door openings to ensure that the structure is capable of sustaining the additional weight of the Aquapanel System.

12.7 Horizontal movement joints must be provided at every floor to accommodate vertical shrinkage of up to 6 mm in the timber frame (not required for steel-frame construction).

12.8 When a breather membrane is required, it must be installed and properly overlapped in accordance with the instructions of the membrane manufacturer and the building designer.

12.9 All window and door openings are sealed strictly in accordance with the Certificate holder's installation instructions to ensure they are weathertight.

13 Procedure

Aquapanel boards

13.1 The Aquapanel is supported on a minimum of three vertical vacuum or pressure treated 38 mm by 75 mm (minimum thickness) timber battens (ie double span) with a minimum edge distance of 15 mm. A maximum overriding fixing spacing of 200 mm is used for the panel.

13.2 When used as an exterior wall cladding in new and existing timber or steel-frame houses (see Figures 1 and 2), the Aquapanel boards are attached to vertical battens that have been fixed through a breathable membrane (not covered by this Certificate) conforming to BS 4016 : 1997 and correspond in line with the vertical timber/steel-frame members. In steel-frame applications, vertical timber battens should be fitted opposite steel studding at a maximum of 0.6 m centres, to avoid thermal bridging.

Figure 1 Typical timber-frame construction details

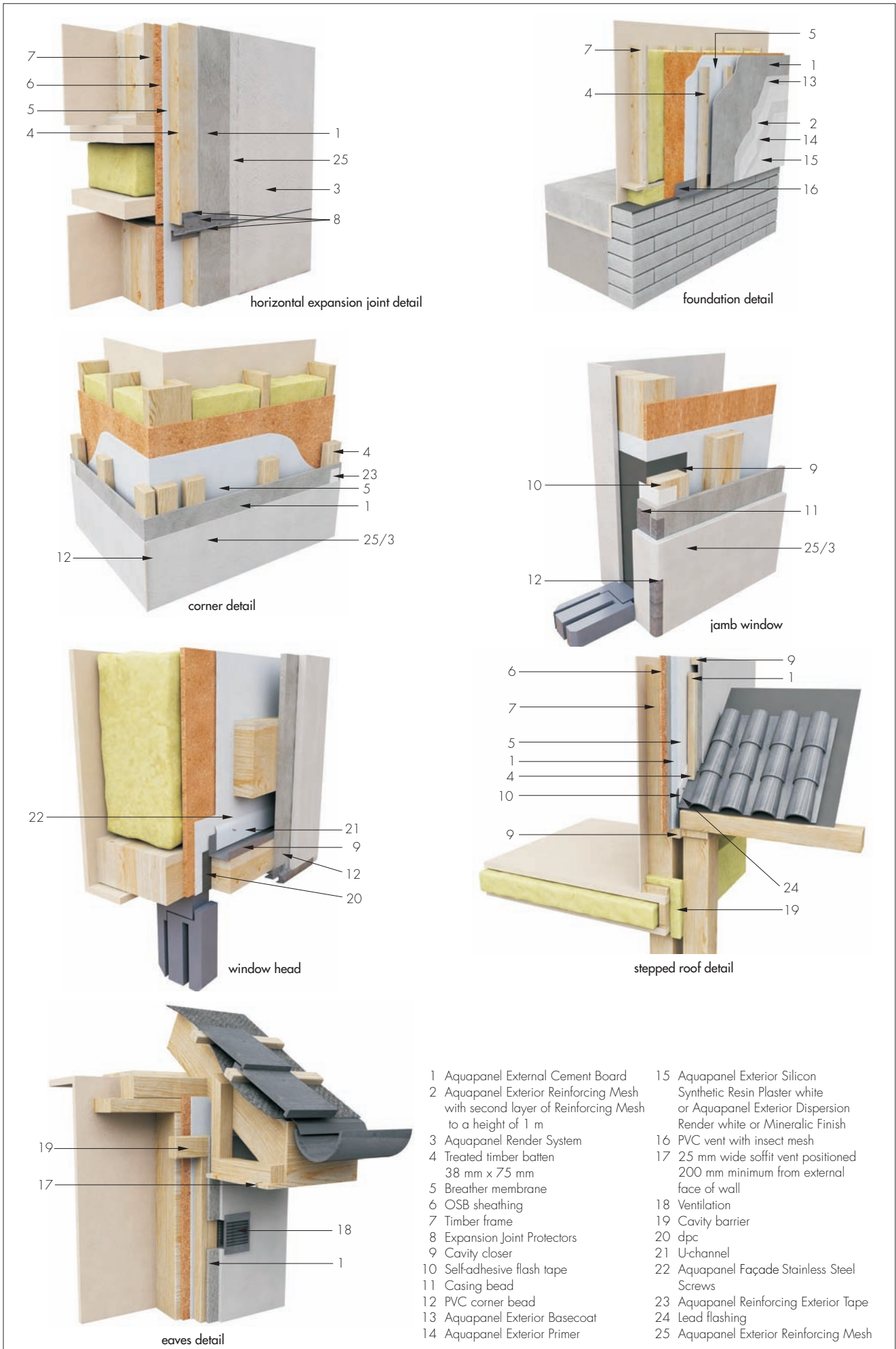
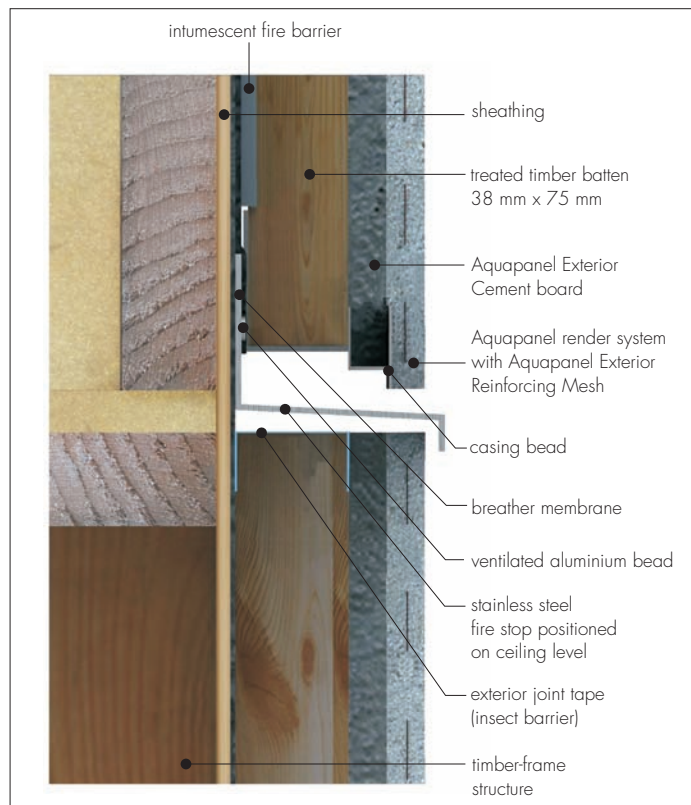


Figure 2 Fire stop detail specific up to four-storey, timber-frame construction



13.3 Panels may be fixed using Aquapanel Façade Fixing screws, nails or staples, as detailed:

For battens at 400 mm centres

- Aquapanel screws are placed every 200 mm vertically for both internal support and edge support battens
- Aquapanel nails are placed every 95 mm vertically for internal support battens but every 200 mm for edge support battens
- Aquapanel staples are placed every 65 mm vertically for internal support battens but every 180 mm for edge support battens.

For battens at 600 mm centres

As the wind loads increase at corners and roof areas, 600 mm centre battens must not be used in the area within 0.2 of the wall length from corner battens.

- Aquapanel screws are placed every 180 mm vertically for internal support battens (with 120 mm for spacing between first and second screw) but every 200 mm for edge support battens
- Aquapanel nails are placed every 55 mm vertically for internal support battens but every 180 mm for the edge support battens
- Aquapanel staples are placed every 35 mm vertically for internal support battens but every 120 mm for edge support battens.

Note: The above fixings relate to wind loading checked for a basic wind speed of 26 ms⁻¹ in accordance with BS 6399-2 : 1997. For use in areas of higher wind speeds, advice should be sought from the Certificate holder.

13.4 Aquapanel boards are fixed horizontally, with ends and edges over supports. Successive rows of panels should be installed with vertical joints offset by a minimum of one stud cavity and with gaps of 3 mm to 5 mm between boards to allow for thermal/moisture expansion.

13.5 Aquapanel boards are cut to fit up to the lintel and down to the sill of windows to ensure that no continuous vertical continuous joint is formed to avoid leakage and cracks.

13.6 Immediately after assembly, the substructure is protected by filling all joints and screw heads with Aquapanel Joint Filler. Aquapanel Exterior Reinforcing Tape should be immediately embedded centrally over all the joints.

13.7 All corners must now be reinforced by applying a 5 mm to 7 mm thick layer of Aquapanel Exterior Basecoat (which is mixed at a rate of 5 litres per 25 kg bag) to the boards, embedding Aquapanel Exterior Reinforcing Mesh and placing a corner profile on top.

13.8 Windows and other openings should be reinforced at the corners with extra pieces of Aquapanel Exterior Reinforcing Mesh (minimum size 500 mm by 300 mm).

13.9 The entire wall is now covered with Aquapanel Exterior Basecoat by trowel application and Aquapanel Exterior Reinforcing Mesh embedded centred over all joints to approximately one third of the depth and left to dry thoroughly (refer to the Certificate holder's drying time specifications).

13.10 One coat of Aquapanel Exterior Primer is applied over the entire surface and left to cure for 24 hours, prior to applying the render finishes.

13.11 The applicator should ensure that the final surface is smooth before applying one of the render finishes.

Render finish

13.12 The Certificate holder's advice should be sought regarding the preparation and application of either of the three render finishes. In particular, regard should be taken of the following mixing and application thicknesses:

- Aquapanel Exterior Silicon Synthetic Resin Render is ready mixed and is applied to suit the maximum grain size of 2 mm
- Aquapanel Exterior Dispersion Render is ready mixed and is applied to suit the grain size
- for buildings above two storeys in height, Aquapanel Mineralic Finish must be used. This is mixed at a rate of 7.5 litres of water to 30 kg of render until smooth and is applied to suit the grain size of 2 mm.

13.13 The finishes must not be applied in wet weather, at temperatures below 5°C, or when frost is expected. Freshly coated work should be protected from rain.

13.14 To avoid dry line joints, continuous surfaces should be completed without a break.

Technical Investigations

14 Investigations

An assessment was made of the test data leading to the issue of the Irish Agrément Certificate IAB 06/0161 for the system including:

- bending stiffness
- shear strength and tensile strength of fixings
- uniform loading capacity between studs
- nailability
- surface spread of flame
- suitability for surface coatings.
- dimensional stability
- flexural strength
- water absorption
- weight per square metre
- thermal conductivity
- impact strength
- indentation strength
- nail pull-through resistance
- freeze/thaw resistance
- minimum bending radius

Bibliography

- BS 4016 : 1997 *Specification for flexible building membranes (breather type)*
- BS 5268-2 : 2002 *Structural use of timber — Code of practice for permissible stress design, materials and workmanship*
- BS 5268-5 : 1989 *Structural use of timber — Code of practice for the preservative treatment of structural timber*
- BS 5589 : 1989 *Code of practice for preservation of timber*
- BS 5950-5 : 1998 *Structural use of steelwork in building — Code of practice for design of cold formed thin gauge sections*
- BS 6399-2 : 1997 *Loading for buildings – Code of practice for wind loads*
- BS 8200 : 1985 *Code of practice for design of non-loadbearing external vertical enclosures of buildings*
- BS EN 351-1 : 2007 *Durability of wood and wood-based products — Preservative-treated solid wood — Classification of preservative penetration and retention*
- BS EN 1991-1-4 : 2005 *Eurocode 1 : Actions on structures – General actions – Wind actions*
- EN 13501-1 : 2007 *Fire classification of construction products and building elements. Classification using test data from reaction to fire tests*

15 Conditions

15.1 This Certificate:

- relates only to the product/system that is named and described on the front page
- is granted only to the company, firm or person named on the front page — no other company, firm or person may hold or claim any entitlement to this Certificate
- is valid only within the UK
- has to be read, considered and used as a whole document — it may be misleading and will be incomplete to be selective
- is copyright of the BBA
- is subject to English law.

15.2 Publications and documents referred to in this Certificate are those that the BBA deems to be relevant at the date of issue or re-issue of this Certificate and include any: Act of Parliament; Statutory Instrument; Directive; Regulation; British, European or International Standard; Code of Practice; manufacturers' instructions; or any other publication or document similar or related to the aforementioned.

15.3 This Certificate will remain valid for an unlimited period provided that the product/system and the manufacture and/or fabrication including all related and relevant processes thereof:

- are maintained at or above the levels which have been assessed and found to be satisfactory by the BBA
- remain covered by a valid Irish Agrément; and
- are reviewed by the BBA as and when it considers appropriate.

15.4 In granting this Certificate, the BBA is not responsible for:

- the presence or absence of any patent, intellectual property or similar rights subsisting in the product/system or any other product/system
- the right of the Certificate holder to manufacture, supply, install, maintain or market the product/system
- individual installations of the product/system, including the nature, design, methods and workmanship of or related to the installation
- the actual works in which the product/system is installed, used and maintained, including the nature, design, methods and workmanship of such works.

15.5 Any information relating to the manufacture, supply, installation, use and maintenance of this product/system which is contained or referred to in this Certificate is the minimum required to be met when the product/system is manufactured, supplied, installed, used and maintained. It does not purport in any way to restate the requirements of the Health & Safety at Work etc Act 1974, or of any other statutory, common law or other duty which may exist at the date of this Certificate; nor is conformity with such information to be taken as satisfying the requirements of the 1974 Act or of any statutory, common law or other duty of care. In granting this Certificate, the BBA does not accept responsibility to any person or body for any loss or damage, including personal injury, arising as a direct or indirect result of the manufacture, supply, installation, use and maintenance of this product/system.

