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Agrément Certificate

18/5604

Product Sheet 3

MONOLITH BRICK CLADDING SYSTEMS AND DECORATIVE STONES

STONEPLUS

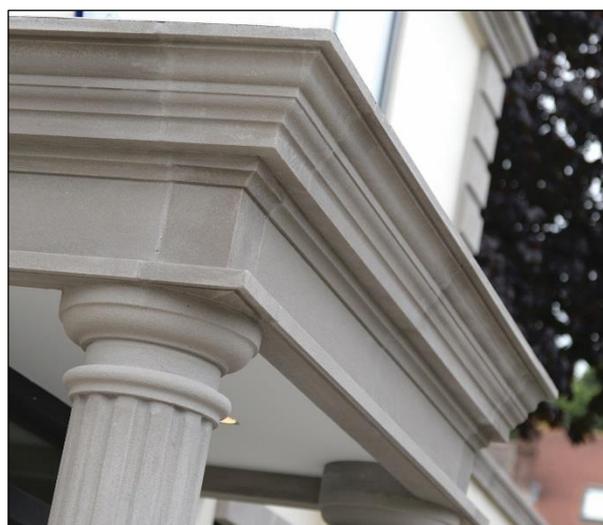
This Agrément Certificate Product Sheet⁽¹⁾ relates to StonePlus⁽²⁾, bespoke decorative stone features such as windows sills, headers and jambs, copings, cornices, friezes and quoins, comprising a facing layer of mortar-based lightweight limestone or glassfibre-reinforced concrete (GRC), with an insulated core. StonePlus are suitable for use on internal walls and the outside of external walls of masonry including dense or no-fines concrete construction, on both new or existing domestic and non-domestic buildings, with no storey 18 m or more above the ground.

(1) Hereinafter referred to as 'Certificate'.

(2) StonePlus is a registered trademark.

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 investigations
- design considerations
- installation guidance
- regular surveillance of production
- formal three-yearly review.



KEY FACTORS ASSESSED

Strength and stability — the products can adequately resist wind loads and impact damage (see section 6).

Behaviour in relation to fire — the products have a B-s1, d0 reaction to fire classification to BS EN 13501-1 : 2007 and are restricted in terms of building height and, additionally in Scotland, proximity to a boundary and calculations for unprotected areas (see section 7).

Water resistance — the products will provide a degree of protection against rain ingress (see section 8).

Durability — when installed and maintained in accordance with the Certificate holder's recommendations and this Certificate, the products will remain effective for at least 30 years (see section 11).



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

On behalf of the British Board of Agrément

Date of First issue: 21 December 2018

Paul Valentine
Technical Excellence Director

Claire Curtis-Thomas
Chief Executive

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. Any photographs are for illustrative purposes only, do not constitute advice and should not be relied upon.

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Regulations

In the opinion of the BBA, StonePlus, 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 presence of a UK map indicates that the subject is related to the Building Regulations in the region or regions of the UK depicted):



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

Requirement:	A1	Loading
Comment:		The products can sustain and transmit wind loads to the substrate. See sections 6.1 to 6.7 of this Certificate.
Requirement:	B4(1)	External fire spread
Comment:		The products can satisfy or contribute to satisfying this Requirement. See sections 7.1 to 7.3 of this Certificate.
Requirement:	C2(b)	Resistance to moisture
Comment:		The products provide a degree of protection against rain ingress. See section 8.1 of this Certificate.
Requirement:	7	Materials and workmanship
Comment:		The products are acceptable. See section 11 and the <i>Installation</i> part of this Certificate.



The Building (Scotland) Regulations 2004 (as amended)

Regulation:	8(1)(2)	Durability, workmanship and fitness of materials
Comment:		The products can contribute to a construction satisfying this Regulation. See sections 10 and 11 and the <i>Installation</i> part of this Certificate.
Regulation:	9	Building standards applicable to construction
Standard:	1.1	Structure
Comment:		The products can sustain and transmit wind loads to the structural frame. See sections 6.1 to 6.7 of this Certificate.
Standard:	2.6	Spread to neighbouring buildings
Comment:		The products are regarded as 'low risk' and therefore can satisfy this Standard, with reference to clauses 2.6.4 ⁽¹⁾⁽²⁾ , 2.6.5 ⁽²⁾ and 2.6.6 ⁽²⁾ . See sections 7.1, 7.2 and 7.4 of this Certificate.
Standard:	2.7	Spread on external walls
Comment:		The products can satisfy the requirements of this Standard, with reference to clauses 2.7.1 ⁽¹⁾⁽²⁾ and 2.7.2 ⁽²⁾ . See sections 7.1, 7.2 and 7.4 of this Certificate.
Standard:	3.10	Precipitation
Comment:		The products will contribute to a construction satisfying this Standard, depending on the application, with reference to clauses 3.10.1 ⁽¹⁾⁽²⁾ and 3.10.6 ⁽¹⁾⁽²⁾ . See section 8.1 of this Certificate.
Standard:	7.1(a)(b)	Statement of sustainability
Comment:		The products can contribute to satisfying the relevant requirements of Regulation 9, Standards 1 to 6, and therefore will contribute to a construction meeting a bronze level of sustainability as defined in this Standard.
Regulation:	12	Building standards applicable to conversions
Comment:		All comments given for the products under Regulation 9, Standards 1 to 6, also apply to this Regulation, with reference to clause 0.12 ⁽¹⁾⁽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(a)(i)	Fitness of materials and workmanship
Comment:	(iii)(b)(i)	The products are acceptable. See section 11 and the <i>Installation</i> part of this Certificate.
Regulation:	28(b)	Resistance to moisture and weather
Comment:		The products provide a degree of protection against rain ingress. See section 8.1 of this Certificate.
Regulation:	30	Stability
Comment:		The products can sustain and transmit wind loads to the structural frame. See sections 6.1 to 6.7 of this Certificate.
Regulation:	36(a)	External fire spread
Comment:		The products can satisfy or contribute to satisfying this Regulation. See sections 7.1 to 7.3 of this 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.

See sections: 3 *Delivery and site handling* (3.1 and 3.4) and 14 *Procedure* (14.2) of this Certificate.

Additional Information

NHBC Standards 2018

In the opinion of the BBA, StonePlus⁽¹⁾, if installed, used and maintained in accordance with this Certificate, can satisfy or contribute to satisfying the relevant requirements of *NHBC Standards, Part 6 Superstructure (excluding roofs)* Chapters 6.1 *External masonry wall* and 6.11 *Render*.

(1) StonePlus sills are not accepted on NHBC sites

Technical Specification

1 Description

1.1 StonePlus products are decorative stone features, consisting of a white expanded polystyrene (EPS) core coated with limestone- or GRC-based render, and adhesively secured to internal walls or the outside of external walls of masonry including dense or no-fines concrete, on new or existing domestic and non-domestic buildings. StonePlus products are manufactured in various stone features (see Figure 1) such as windows sills, headers and jambs, copings, cornices, friezes and quoins.

1.2 StonePlus comprises:

Render adhesive (for substrate)

- Multi-flex — cement-based, polymer-modified, thin-bed adhesive manufactured to comply with Type C Class 2FTE in accordance with BS EN 12004-1 : 2017, and available in grey and white
- Maite Monocomposant — coloured or white cement-based powder of micronised vinyl copolymer, calcareous and siliceous sands, mineral pigments and admixtures, to which water is added

Insulation

- EPS (EPS 150-white) — with a nominal density of $25 \text{ kg}\cdot\text{m}^{-3}$, minimum compressive strength of $150 \text{ kN}\cdot\text{m}^{-2}$ to BS EN 826 : 2013 and a declared thermal conductivity (λ_D) of $0.035 \text{ W}\cdot\text{m}^{-1}\cdot\text{K}^{-1}$. The EPS has a class E reaction to fire classification and complies with BS EN 13163 : 2012

Render shell

- StonePlus Render Shell — lightweight factory-made mortar render, available in two blends:
 - Lime-based mortar formulation with a density of $1450 \text{ kg}\cdot\text{m}^{-3}$
 - GRC-based mortar formulation with a density of $1800 \text{ kg}\cdot\text{m}^{-3}$

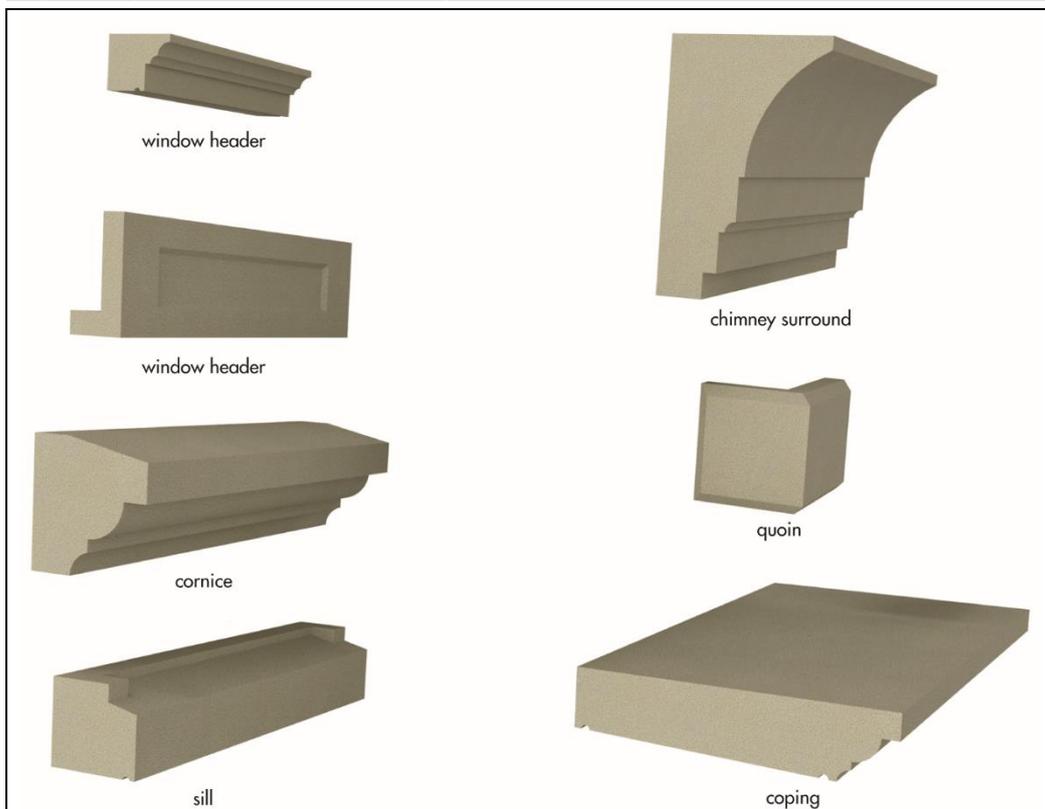
Pointing mortar

- Monolith Pointing Mortar — pre-coloured water-repellent, frost-resistant, cementitious pointing mortar supplied in powder form, to which water is added
- Thermocromex Pointing Mortar — pre-coloured water-repellent, frost-resistant, cementitious pointing mortar supplied in powder form, to which water is added.

1.3 Other components to be used with the products, but outside the scope of this Certificate, are:

- Brickwork substrate of designation F0, F1, F2 and S2. For S1 a consent and agreement of the brick manufacture to retrofit to a system is necessary
- mastic seal — expanding sealing tape
- flashing — in accordance with *NHBC Standards 2018*, Table 13
- cavity trays.

Figure 1 Typical StonePlus product range



2 Manufacture

2.1 StonePlus products are manufactured from mortar using various moulds and angles to produce different style finishes. The wet mortar is bonded to EPS whilst in the mould.

2.2 As part of the assessment and ongoing surveillance of product quality, the BBA has:

- agreed with the manufacturer the quality control procedures and product testing to be undertaken
- assessed and agreed the quality control operated over batches of incoming materials
- monitored the production process and verified that it is in accordance with the documented process
- evaluated the process for management of nonconformities
- checked that equipment has been properly tested and calibrated
- 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.

3 Delivery and site handling

3.1 StonePlus products are delivered to site in boxes stacked on pallets, with a polythene cover. Each pallet carries the product identification and batch number. The components are available in the quantities and packaging listed in Table 1.

Table 1 Packaging and weights — components

Component	Dimensions	Mass (kg)	Packaging
Maite Monocomposant — adhesive		30	Bags – 40 per pallet (1.2 tonnes per pallet)
Multi-Flex		20	Bags – 50 per pallet
StonePlus: windows sills, headers, jambs, copings, cornices, friezes, quoins	Width = 50 to 600 mm Height = 50 to 600 mm Length = 100 to 200 mm	5 to 30 kg	4 to 40 per pallet
Monolith Pointing Mortar		30	Bags – 49 per pallet (1.47 tonnes per pallet)
Thermocromex Pointing Mortar		25	Bags – 40 per pallet (1.2 tonnes per pallet)

3.2 Care must be taken when handling the products to avoid damage as they are fragile.

3.3 Lengths must be handled delicately and carried safely. Longer lengths may require two persons to handle and install. StonePlus products must be held in the centre to ensure minimum stress is placed on the joints or thinner sections.

3.4 The boxed StonePlus products should be protected from rain and other moisture sources. Pallets must be stored flat in dry conditions. StonePlus products must not be exposed to open flame or other ignition sources and must be kept away from flammable material (eg paint and solvents).

3.5 The adhesive should be stored in a cool dry place and protected from moisture, frost and direct sunlight at all times. Bags of unopened adhesive have a shelf life of 12 months when stored correctly.

Assessment and Technical Investigations

The following is a summary of the assessment and technical investigations carried out on StonePlus.

4 General

4.1 StonePlus products can be applied to the external or internal face of walls of masonry including dense or no-fines concrete on new or existing domestic and non-domestic buildings.

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

- BS EN 1992-1-1 : 2004 and its UK National Annex
- BS EN 1996-1-1 : 2005 and its UK National Annex
- BS EN 1996-2 : 2006 and its UK National Annex
- BS 8000-3 : 2001
- BS 8000-2.2 : 1990
- BS 8000-0 : 2014
- PD 6697 : 2010.

4.3 New walls not subject to regulatory requirements should also be built in accordance with the Standards identified in sections 4.2.

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

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

4.6 As with any form of cavity wall construction where buildings need to comply with *NHBC Standards 2018*, specifiers should observe the requirements of this document and include cavity trays and weep-holes. Cavity trays should be fire rated in accordance with the national Building Regulations.

4.7 It is essential that the products are installed and maintained in accordance with the conditions set out in this Certificate.

5 Practicability of installation

The products should be installed only by specialist contractors who have successfully undergone training and registration by the Certificate holder.

6 Strength and stability



6.1 The Certificate holder is ultimately responsible for the design of the products and must 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 (see section 6.2)
- the products can adequately resist and safely transfer the calculated loads, accounting for all possible failure modes, to the substrate wall and supporting structure (see sections 6.2 to 6.5)
- the substrate wall and supporting structure has adequate strength and stability to resist the loads that may be applied as a result of installing the products, ignoring any positive contribution that may occur from the products
- the substrate wall will resist the lateral loads based on serviceability deflection limits of height/360.

6.2 The wind loads on the walls should be calculated, 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 : 2002, a partial factor of 1.5 must be applied to the calculated characteristic wind load to establish the design wind load to be resisted by the products.

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

6.4 Positive wind load is transferred to the substrate wall directly through compression of the products to the structural substrate

6.5 Negative wind load is resisted by the bond strength between the products and the adhesive, and between the adhesive and the substrate.

6.6 The characteristic bond resistance between the products and masonry substrate (standard brick) interface derived from test results was $77 \text{ kN}\cdot\text{m}^{-2}$. The design resistance of the bond strength should be taken as the characteristic bond resistance divided by a partial factor of 9.

Impact resistance



6.7 Hard body impact tests (with 3 and 10 joules) were carried out and confirmed that the products can adequately resist the impact damage.

6.8 Special care should be taken to avoid 'chipping off' of the edges, when in contact with hard body objects.

7 Behaviour in relation to fire



7.1 The reaction to fire classification for the products, when tested in accordance with BS EN 13501-1 : 2007, is B-s1, d0.

7.2 The classification applies to the full range of StonePlus products included in this Certificate.



7.3 The products are not classified as non-combustible or of limited combustibility and may be used on buildings with no storey 18 m or more above the ground and at any proximity to a boundary.



7.4 The products are classified as 'Low Risk' in Scotland, and may be used on buildings with no storey 18 m or more above the ground and more than 1 m from a boundary, and 1 m or less from a boundary on houses. With minor exceptions, the products should be included in calculations of unprotected areas, except on houses where the external wall behind has the appropriate fire resistance.

7.5 For application of the products around either a doorway or escape window, it is recommended that the designer should consider the use of supplementary steel mechanical fixings at 1 m centres.

8 Water resistance



8.1 The headers, sills and jambs will provide a degree of protection against water ingress.

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

9 Risk of condensation

Window sills, headers, jambs

9.1 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 system and windows, to minimise the risk of condensation. The recommendations of BS 5250 : 2011 should be followed.

9.2 The StonePlus products have an equivalent air layer of thickness (S_d) of 0.84 m; the EPS 150 in isolation has a water diffusion resistance factor (μ) of 30 to 70⁽¹⁾.

(1) μ taken from BS EN 13163 : 2012.

10 Maintenance and repair



10.1 Regular checks should be made on the installed products, including:

- visual inspection for signs of disbondment (direct jet cleaning of the products should be avoided). Dislodged products must be re-fixed using appropriate adhesive
- visual inspection to ensure that water is not leaking from external downpipes or gutters; such leakage could penetrate StonePlus
- maintenance schedules, which should include the replacement and resealing of joints, for example between StonePlus and windows
- visual inspection for signs of damage; damaged products should be removed and replaced with new ones, using the adhesive as supplied by the Certificate holder.

10.2 Stone sealer should be applied to the surface, if the stone is cleaned with an abrasive method. Only the sealer supplied by the Certificate holder should be used.

11 Durability



The products will remain effective for at least 30 years, provided any damage is repaired immediately, and regular maintenance is undertaken as described in section 10.

12 Site survey and preliminary work

12.1 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 products. A specification is prepared for each elevation of the building indicating, for example:

- detailing around windows and doors, and at eaves
- exact position of expansion joints
- any alterations to external plumbing.

12.2 The survey should include tests conducted on the walls of the building by the Certificate holder or their approved installers to determine the bond strength between the adhesive and the substrate and demonstrate that the bond strength resistance is equal to, or higher than, the design wind load (see section 6.6). An assessment and recommendation should be made on the minimum bond strength required to withstand the building's expected wind loading based on calculations using the test site data in accordance with section 6.

12.3 Surfaces should be sound, clean and free from loose material. The flatness of surfaces must be checked and any excessive irregularities, ie greater than 5 mm in one metre must be made good prior to installation, to ensure that the products are installed with a smooth, in-plane finished surface.

12.4 Where surfaces are covered with an existing render, it is essential that the bond between the substrate and the render is adequate. All loose areas must be hacked off and reinstated.

12.5 All modifications and necessary repairs to the building must be completed before installation commences.

13 Approved Installers

Application of the products, within the context of this Certificate, must be carried out by approved installers recommended or recognised by the Certificate holder. Such an installer is a company:

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

Installation

14 Procedure

14.1 Application of the products must be carried out in accordance with the Certificate holder's current installation instructions.

Marking out and adhesive application

14.2 The wall must be marked out, to ensure the products fit its desired location; if necessary, the products can be cut to the desired length with a grinder and/or masonry saw. The cuts should always be made where two pieces can be connected together and not expose the insulation. Exposed areas must never be cut. Protective eye-wear/goggles must be worn all the times.

14.3 The products are adhesively bonded to the wall using either Maite Monocomposant or Multiflex. Maite Monocomposant is prepared by adding 5 to 5.5 litres of water to each bag and mixing with a paddle mixer until smooth and lump free. Multiflex is prepared by adding 5 litres of water to each bag and thoroughly stirring with a paddle mixer to give a soft, slump-free, easily worked mortar.

14.4 Weather conditions should be monitored to ensure correct application and curing conditions. Application of coating materials must not be carried out at temperatures below 5°C or above 25°C, or if exposure to frost is likely, and the coating must be protected from rapid drying. Installation should not take place during rainfall or if rain is anticipated. In addition, cementitious-based renders must not be applied if the temperature will fall below 0°C within 72 hours of completion.

14.5 Where S1 bricks are used, the render mix should resist sulfate to provide an appropriate bond; clay brick backgrounds with a water absorption rate of between 9 and 15% should generally have sufficient suction to provide a mechanical key.

14.6 The adhesive is applied to the back of the products over the entire face, either by using a smooth-edged trowel (for Maite Monocomposant) or a notched trowel (for Multiflex), to an even coat (5.0 mm minimum thickness). The adhesive will remain useable for approximately 20 minutes once applied but may vary dependent on temperate/humidity.

14.7 The products are positioned along a marked line or in an opening, and checked to ensure levels are correct and that multiple product pieces align.

14.8 To ensure a flush finish, the products are pressed firmly against the wall and butted tightly together. Packers and a prop may be used to correct the position.

14.9 The products are secured into place using a gentle rocking motion to ensure full adhesive contact. Using moderate force, the profile is evenly pushed with a full palm to maximise adhesive grab.

14.10 When pointing, the mortar is hand pumped into the joint through a gun and left to harden, before finishing with a pointing tool to achieve the desired effect.

Movement joints

14.11 Generally, movement joints should be considered for all the products. If an expansion joint is incorporated in the substrate (generally no more than 15 metres on continuous lengths), it must be replicated through the products and sealed with mastic seal (outside the scope of the Certificate).

Window sills, header, jambs

14.12 Care should be taken in the detailing of the products around features such as window openings, to ensure adequate protection against water ingress and to limit the risk of water penetrating openings (see Figure 2).

14.13 Standard sills, heads or jambs can be horned and cut to length on site as per the Certificate holder's instructions. A mortar joint is used between profiles. When fixing, the products are propped or secured in the correct position, before leaving the adhesive to set.

Stringers/flush-fitted decorative details

14.14 The products are propped and supported in place whilst the adhesive sets. Once the adhesive sets, if pointing is required, a pointing gun is used to apply StonePlus Mortar in the joints. When the mortar is dry, joints should be brushed to remove all loose mortar etc.

Portico

14.15 For fixing to a portico, the products must be fitted around the structural substrate. The portico should be built of a structural substrate and be suitable for fixing with appropriate adhesive (see section 14.3).

Pointing

14.16 The products must be left to cure for a minimum of 24 hours after fitting before pointing commences.

14.17 Pointing mortar is applied in accordance with the Certificate holder's instructions. Pointing must be carried out in dry conditions, although not in direct sunlight.

14.18 The pointing mortar is prepared by mixing each bag (25 or 30 kg) with approximately 3.75 to 5.5 litres of water, using a paddle mixer. When using a pointing gun, the mix needs to be wetter than if pointing with a trowel. For colour variations, a colour pigment pack is thoroughly mixed with each bag of mortar (the pigment powder must be thoroughly dry-mixed prior to use).

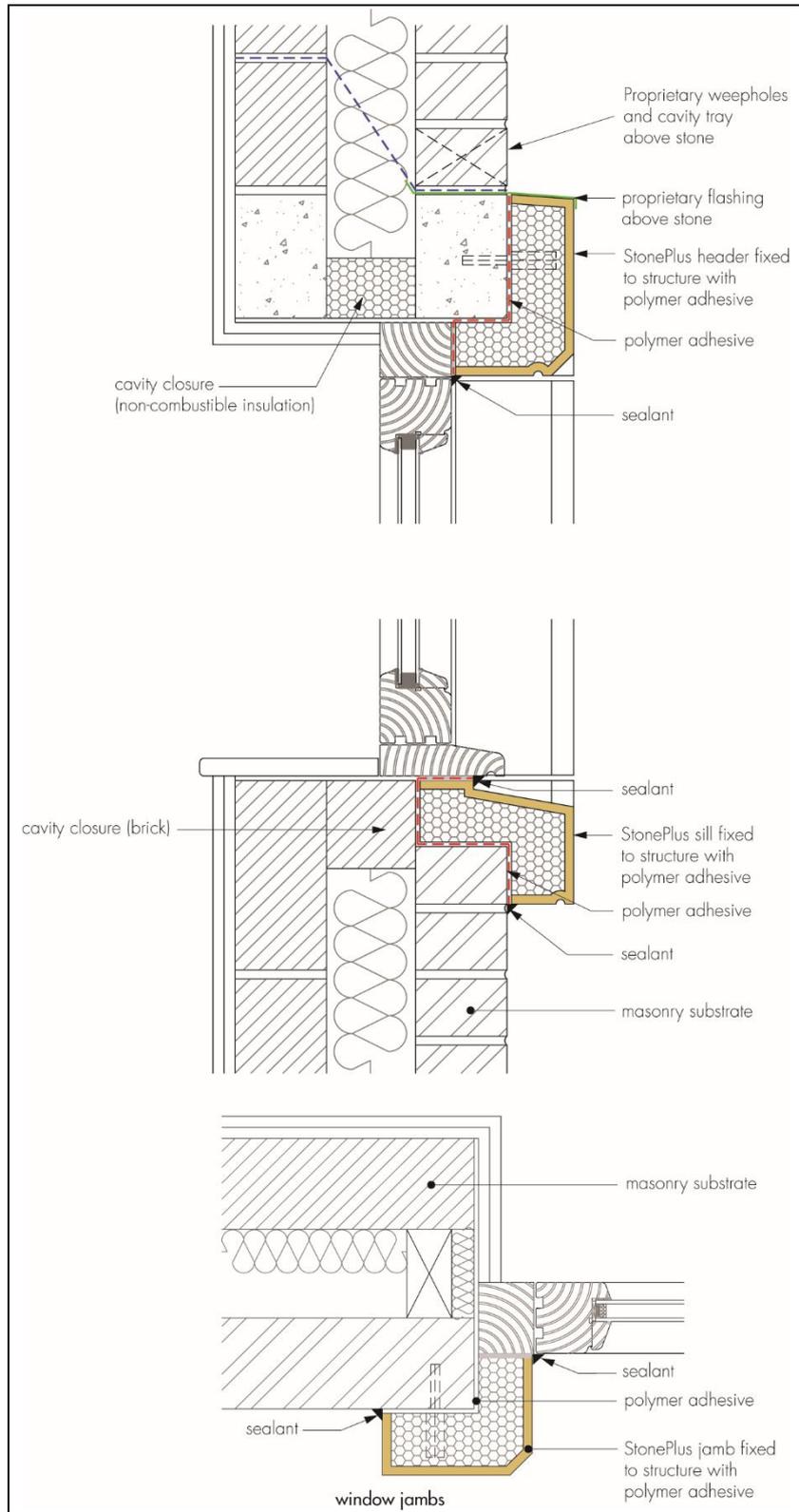
14.19 Joints must be completely filled with mortar and slightly raised above the products. The mortar should be left for one-and-a-half to two hours to become semi-dry.

14.20 Depending on the required pointing style, either the pointing tool or trowel is used to remove excess pointing mortar from the joints. The mix should be pressed firmly into the joints to ensure no holes remain.

14.21 Pointing should begin with the 'perps' followed by the 'beds', completing a small section at a time, and starting with the area where mortar was first applied. It is important to firstly go over each joint roughly (to remove any excess mortar), and then again to form a smooth 'closed' surface.

14.22 Once completed, the area should be lightly brushed (using a soft brush) to remove any loose mortar. Fresh pointing should be protected from rain and frost for at least 24 hours wherever possible.

Figure 2 Window sill and header details



15 Tests

Tests were carried out on StonePlus and the results assessed to determine:

- water absorption
- water vapour permeability
- frost resistance
- bond strength between the products and masonry substrate
- effect of heat/spray and freeze-thaw
- resistance to hard body impact
- horizontal point load.

16 Investigations

16.1 An assessment was made of data relating to:

- reaction to fire
- thermal conductivity
- the risk of condensation.

16.2 The manufacturing process was evaluated, including the methods adopted for quality control, and details were obtained of the quality and composition of the materials used.

16.3 The practicability of installation and the effectiveness of detailing techniques were assessed.

Bibliography

BS 5250 : 2011 *Code of practice for control of condensation in buildings*

BS 8000-0 : 2014 *Workmanship on construction sites — Introduction and general principles*

BS 8000-2.2 : 1990 *Workmanship on building sites — Code of practice for concrete work — Sitework with in situ and precast concrete*

BS 8000-3 : 2001 *Workmanship on building sites — Code of practice for masonry*

BS EN 826 : 2013 *Thermal insulating products for building applications — Determination of compression behaviour*

BS EN 1990 : 2002 *Eurocode — Basis of structural design*

BS EN 1991-1-1 : 2002 *Eurocode 1 — Actions on structures. General actions — Densities, self-weight, imposed loads for buildings*

BS EN 1991-1-4 : 2005 *Eurocode 1: Actions on structures — General actions — Wind actions*

NA to BS EN 1991-1-4 : 2005 *Eurocode 1: Actions on structures — General actions — Wind actions*

BS EN 1992-1-1 : 2004 *Eurocode 2 — Design of concrete structures — General rules and rules for buildings*

NA to BS EN 1992-1-1 : 2004 *Eurocode 2 — Design of concrete structures — General rules and rules for buildings*

BS EN 1992-1-2 : 2004 *Eurocode 2 — Design of concrete structures — General rules — Structural fire design*

BS EN 1996-1-1 : 2005 *Eurocode 6 — Design of masonry structures — General rules for reinforced and unreinforced masonry structures*

NA to BS EN 1996-1-1 : 2005 *UK National Annex to Eurocode 6 — Design of masonry structures — General rules for reinforced and unreinforced masonry structures*

BS EN 1996-2 : 2006 *Eurocode 6: Design of masonry structures — Design considerations, selection of materials and execution of masonry*

NA to BS EN 1996-2 : 2006 *UK National Annex to Eurocode 6 — Design of masonry structures — Design considerations, selection of materials and execution of masonry*

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

BS EN 13501-1 : 2007 *Fire classification of construction products and building elements — Classification using test data from reaction to fire tests*

BS EN 13163 : 2012 *Thermal insulation products for buildings — Factory made expanded polystyrene (EPS) products — Specification*

PD 6697 : 2010 *Recommendations for the design of masonry structures to BS EN 1996 -1 -1 and BS EN 1996 -2*

17 Conditions

17.1 This Certificate:

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

17.2 Publications, documents, specifications, legislation, regulations, standards and the like referenced in this Certificate are those that were current and/or deemed relevant by the BBA at the date of issue or reissue of this Certificate.

17.3 This Certificate will remain valid for an unlimited period provided that the product/system 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.

17.4 The BBA has used due skill, care and diligence in preparing this Certificate, but no warranty is provided.

17.5 In issuing this Certificate the BBA is not responsible and is excluded from any liability to any company, firm, organisation or person, for any matters arising directly or indirectly from:

- the presence or absence of any patent, intellectual property or similar rights subsisting in the product/system or any other product/system
- the right of the Certificate holder to manufacture, supply, install, maintain or market the product/system
- actual installations of the product/system, including their nature, design, methods, performance, workmanship and maintenance
- any works and constructions in which the product/system is installed, including their nature, design, methods, performance, workmanship and maintenance
- any loss or damage, including personal injury, howsoever caused by the product/system, including its manufacture, supply, installation, use, maintenance and removal
- any claims by the manufacturer relating to CE marking.

17.6 Any information relating to the manufacture, supply, installation, use, maintenance and removal 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, maintained and removed. It does not purport in any way to restate the requirements of the Health and Safety at Work etc. Act 1974, or of any other statutory, common law or other duty which may exist at the date of issue or reissue of this Certificate; nor is conformity with such information to be taken as satisfying the requirements of the 1974 Act or of any statutory, common law or other duty of care.