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Agrément Certificate
09/4671
Product Sheet 1

SUMMIT ROOFLINE SYSTEM

SUMMIT CELLULAR PVC-U ROOFLINE SYSTEM

This Agrément Certificate Product Sheet⁽¹⁾ relates to Summit Cellular PVC-U Roofline System, comprising white fascia, soffit and barge boards, soffit ventilator and accessories, for external use at the roofline as a substitute for timber or other conventional materials.

(1) Hereinafter referred to as 'Certificate'.

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

Ventilation — the ventilated soffit board can contribute towards providing the necessary roof space ventilation (see section 4).

Strength and stability — in terms of wind loading resistance, the system can be used in all areas of the UK (see section 6).

Performance in relation to fire — the cellular boards achieve a Class 1 and Class 1Y surface spread of flame for white PVC-U profiles when tested in accordance with BS 476-7 : 1997 (see section 7).

Durability — the system will retain its decorative qualities for a period in excess of 35 years with only minor changes in surface appearance (see section 9).

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

A handwritten signature in black ink, appearing to read 'John Albon'.

Date of Second issue: 8 September 2015

John Albon — Head of Approvals
Construction Products

A handwritten signature in black ink, appearing to read 'Claire Curtis-Thomas'.

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.

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Regulations

In the opinion of the BBA, Summit Cellular PVC-U Roofline 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 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: C2(b)	Resistance to moisture
Comment:	The system will contribute to providing protection against the penetration of moisture to the inner surface of the building on which it is installed. See section 4.1 of this Certificate.
Requirement: C2(c)	Resistance to moisture
Comment:	When used in accordance with this Certificate, the soffit ventilators can contribute to enabling a roof to satisfy this Requirement. See sections 4.4 to 4.14 of this Certificate.
Regulation: 7	Materials and workmanship
Comment:	The components of the system are acceptable. See section 9.1 and the <i>Installation</i> part of this Certificate.



The Building (Scotland) Regulations 2004 (as amended)

Regulation: 8(1)(2)	Durability of workmanship and fitness of materials
Comment:	The system is acceptable. See sections 8.1 to 8.3 and 9.1 and the <i>Installation</i> part of this Certificate.
Regulation: 9	Building standards applicable to construction
Standard: 3.10	Precipitation
Comment:	The system will contribute to satisfying this Standard, with reference to clause 3.10.1 ⁽¹⁾⁽²⁾ by giving protection against the penetration of moisture to the inner surface of the building on which it is installed. See section 4.1 of this Certificate.
Standard: 3.15	Condensation
Comment:	The soffit ventilators can contribute to enabling a roof to satisfy this Standard, with reference to clauses 3.15.1 ⁽¹⁾ , 3.15.3 ⁽¹⁾ , 3.15.5 ⁽¹⁾ and 3.15.7 ⁽¹⁾ . See sections 4.4 to 4.14 of this Certificate.
Regulation: 12	Building standards applicable to conversions
Comment:	All comments given for these systems 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	Fitness of materials and workmanship
Comment:	The system is acceptable. See section 9.1 and the <i>Installation</i> part of this Certificate.
Regulation: 28(b)	Resistance to moisture and weather
Comment:	The system will contribute to providing protection against the penetration of moisture to the inner surface of the building on which it is installed. See section 4.1 of this Certificate.
Regulation: 29	Condensation
Comment:	The soffit ventilators can contribute towards enabling a roof to satisfy the requirements of this Regulation. See sections 4.4 to 4.14 of this Certificate.

Construction (Design and Management) Regulations 2015

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

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

See sections: 3 *Delivery and site handling* (3.2) and 11 *General* (11.3 and 11.7) of this Certificate.

Additional Information

NHBC Standards 2014

NHBC accepts the use of Summit Cellular PVC-U Roofline System, provided it is installed, used and maintained in accordance with this Certificate, in relation to *NHBC Standards, Chapter 7.2 Pitched roofs*.

Technical Specification



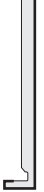


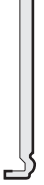

1 Description

1.1 The Summit Cellular PVC-U Roofline System comprises a range of white cellular PVC-U (PVC-UE) soffit, fascia and barge boards and ancillary components including extruded trims, injection moulded joints and end caps.

Fascia boards

1.2 The fascia boards are available in thicknesses of 9 mm, 16 mm and 20 mm (see Table 1). The boards are extruded in standard 5 m lengths with a nominal density of $430 \text{ kg}\cdot\text{m}^{-3}$ and a skin thickness of 0.3 mm.

Table 1 Fascia boards

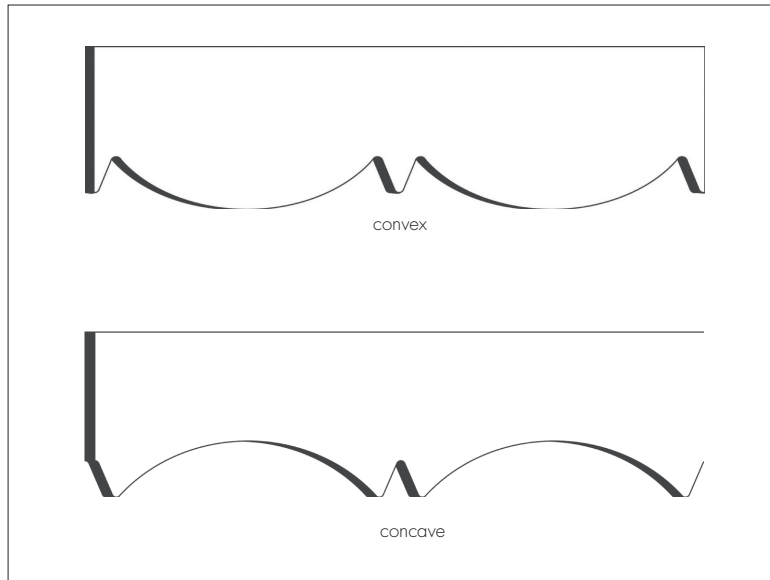
Fascia board	Overall thickness (mm)	Width (mm)	Fascia board	Overall thickness (mm)	Width (mm)	Fascia board	Overall thickness (mm)	Width (mm)
 cover	9	150–605	 Ogee cover	12 (including ribs)	150–405	 square fascia	16	150–455
 flat board	16	150–405	 Bullnose fascia	16	150–455	 Ogee fascia	16	150–405
 standard Sumo	20	150–405						

1.3 The ribs running along the unexposed face of the Ogee cover boards are intended to allow air to the backing board and maintain a level front surface.

1.4 The 16 mm fascia board is also available with a decorative chamfered cut edge, either convex or concave (see Figure 1). The decorative chamfered edge of the board is achieved by routing along the edge of a 16 mm board. The purpose of the chamfer is to reduce the visibility of the cut edge. The minimum width of the decorative board is 160 mm (concave) and 160 mm (convex).

1.5 All fascia profiles are available as double ended boards in widths of 355 mm, 405 mm and 455 mm.

Figure 1 16 mm fascia board with decorative cut edge



Soffit boards

1.6 PVC-U soffit boards are available both unvented (see Table 2) and for ventilating the roof void, as vented boards (see Table 3).

Table 2 soffit boards (unvented)

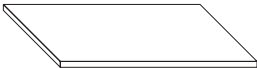
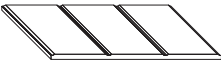
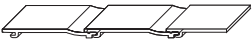
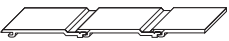
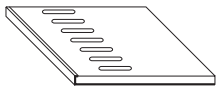
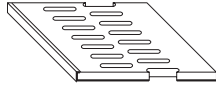
Soffit board	Overall thickness (mm)	Width (mm)
soffit/multi-purpose boards	9	100–605
		
fluted soffit	9	300
		
cladding soffits		
shiplap	6 or 7	100 or 150
		
open 'V'	7 or 7.5	100
		

Table 3 soffit boards (vented)

Soffit board	Overall thickness (mm)	Width (mm)
vented soffit board with a single row of vents	9	100–605
		
vented soffit board with a double row of vents	9	150–450
		

1.7 The ventilated soffit boards are produced by punching 4 mm by 35 mm slots into soffit boards at regular intervals. All boards are available with a single row of slots, suitable for providing ventilation to satisfy the requirement for ventilation equivalent to a continuous air gap of at least 10 mm wide, at the eaves. The boards are also available, with a double row of slots, providing ventilation equivalent to a continuous air gap at least 25 mm wide at the eaves.

1.8 The overall thickness and width of the soffit boards are given in Table 2. The ventilated boards, shown in Table 3, are available in widths of 100 mm to 605 mm.

Trims and ancillaries

1.9 A range of impact modified PVC-U extruded trims with typical examples are shown in Figure 2. Joint covers are available for use with the cellular boards.

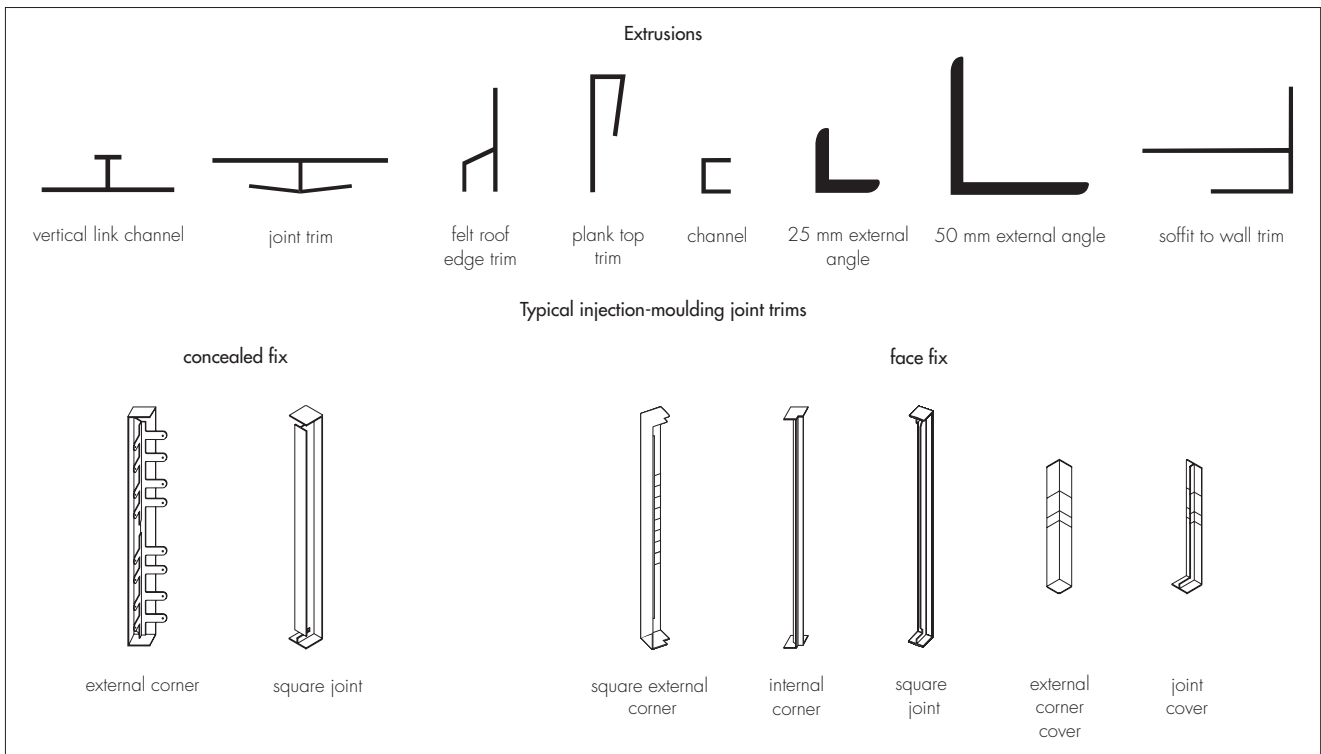
1.10 Ancillary items specified by the Certificate holder for use with the system but outside the scope of this Certificate include:

- stainless steel screws — a range of stainless steel⁽¹⁾ annular ring shank nails with white plastic heads with white cover caps for fixing the boards to sound roof timbers.

(1) A4 (steel No 1.4401 to BS EN 10088-2 : 2005).

- silicone sealant — low modulus for fixing cover trims to boards at corners and abutments.

Figure 2 Trims



2 Manufacture

2.1 The cellular boards comprise a closed-cell cellular PVC-U core beneath an outer weathering impact-modified PVC-U skin. The boards are manufactured by co-extruding the skin compound onto a foamable core compound, cooling and forming to section. Cellular PVC-U is formed during the process by the evolution of gas from sodium bicarbonate in the core compound. Both core and skin formulations include a tin-based stabiliser.

2.2 The trims are acrylate styrene acrylonitrile (ASA). Joint covers are injected-moulded.

2.3 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.

2.4 The management system of Specialist Building Products Limited has been assessed and registered as meeting the requirements of BS EN ISO 9001 : 2008 (Certificate FM 09180) and ISO 14001 : 2004 (Certificate EMS 513947) by BSI.

3 Delivery and site handling

3.1 Standard 5 m lengths of boards are delivered to site in packs sealed in polythene sleeves bearing the Certificate holder's marking and the BBA identification mark, incorporating the number of this Certificate. Pack quantities vary dependent upon the type of profile.

3.2 The packs should be unloaded by hand to avoid damage, stored on a clean, level surface in stacks not exceeding one metre in height and restrained from collapse. If stored externally, the packs should be kept undercover.

3.3 Care must be taken when handling PVC-U boards and trims to avoid contact with solvents or materials containing volatile organic components.

Assessment and Technical Investigations

The following is a summary of the assessment and technical investigations carried out on Summit Cellular PVC-U Roofline System.

Design Considerations

4 General



4.1 The Summit Cellular PVC-U Roofline System is suitable for use externally to provide a protective and decorative trim at the roofline as fascia, soffit and barge boards where timber or other conventional materials would normally be used. The system will provide adequate protection to the interior of the building from the penetration of moisture.

4.2 The system must be fixed only to structurally sound building substrates, at centres not exceeding 600 mm. Rafter feet and gable ladders should be adequately supported by noggings to ensure rigidity. Replacement, rather than over fixing of existing fascia, is recommended. Timber roof structures, to which the system is fixed, must be designed and/or constructed in accordance with the relevant national Building Regulations and BS EN 1995-1 : 2004.

4.3 The system components have a similar coefficient of thermal expansion to that of conventional solid PVC-U. An 8 mm gap should be provided between abutting fascia boards, to allow for movement. Care should be taken not to install the system in extremes of temperature. The recommended temperature for installation is between 5°C and 25°C.

Ventilation



4.4 The Summit ventilated soffit boards can contribute towards providing the necessary roof space ventilation. Guidance on the provision of adequate ventilation is given in the national Building Regulations and BS 5250 : 2011, Clause H.

4.5 When providing roof space ventilation, it is essential that the airway should not be allowed to become blocked by the loft insulation. This may be achieved by the use of a suitable BBA approved insulation retainer producing an air passage with a geometric free area at least equal to that of the ventilated soffit board used.

4.6 The ventilated soffit boards with a double row of slots have an effective ventilated area of 25946 mm² per metre run (which is equivalent to a continuous slot of approximately 25.9 mm wide at eaves level) and are suitable for the applications given in sections 4.8 to 4.10).

4.7 The ventilated soffit boards with a single row of slots have an effective ventilated area of 12973 mm² per metre run (equivalent to a continuous slot 13.0 mm wide at eaves level) and are suitable for the applications given in section 4.8.

4.8 For roofs with a pitch of 15° or more, where both the ceiling and insulation are horizontal, soffit ventilators with a minimum area of 10000 mm² per metre run, if used in accordance with section 4.5, can provide adequate ventilation to insulated loft spaces as set out in BS 5250 : 2011, Clause H. The soffit ventilators should run along the eaves of the longest opposite sides of a rectangular roof to provide adequate cross-ventilation. The ventilators are suitable for use with traditional (semi-permeable) and high-performance (impermeable) sarking felts. Consideration should be given to the use of high-level ventilation openings to increase the ventilation rate for roofs as referred to in BS 5250 : 2011, Clause H. The use of high-level ventilation openings is strongly recommended in roofs with a pitch greater than 35° or roof spans in excess of 10 m.

4.9 For roofs where the ceiling follows the pitch of the roof, soffit ventilators with a minimum effective area of 25000 mm² per metre run, if used in conjunction with suitable high-level ventilation, can provide adequately for roof voids as set out in BS 5250 : 2011, Clause H. It is essential that a minimum unrestricted air space of 50 mm is maintained between the underside of the roof deck and the top of the insulation. Consideration should be given to the probability of the sarking felt bowing between rafters and it should be ensured that this does not reduce the gap between felt and insulation to less than 50 mm. Where there is an obstruction to the ventilation, eg rooflights or a change in pitch of roof, adequate ventilation, in accordance with the requirements of BS 5250 : 2011, Clause H, should be provided above and below the obstruction using suitable ventilators. The required ventilation at high level and around obstructions may be achieved by using a suitable BBA approved ventilator.

4.10 For roofs with a pitch of less than 15°, soffit ventilators with a minimum vented area of 25000 mm² per metre run, if used in accordance with section 4.5, can provide adequate ventilation to roof voids as set out in BS 5250 : 2011, Clause H. When providing roof space ventilation for flat roofs, it is essential that a minimum unrestricted air space of 50 mm is maintained between the underside of the roof deck and the top of the insulation. Ventilation should be provided along two opposite sides of the deck: where possible these should be the two longest sides to achieve maximum cross-ventilation. The recommendations contained in BS 5250 : 2011, Clause H, should be followed when planning the provision of ventilation to flat roofs, especially where spans exceed 5 metres, or for concrete deck roofs. Where a flat roof has a span of greater than 10 m, or is not of a simple rectangular plan, more ventilation will be required, totalling at least 0.6% of the total area of the roof. It should be noted that cold, flat roof construction is generally unacceptable in Scotland and not the preferred option elsewhere in the UK⁽¹⁾.

(1) See BRE Report BR 262 : 2002.

4.11 Where soffit ventilators are used in lean-to or mono-pitched roofs, high-level ventilation, in accordance with BS 5250 : 2011, Clause H, must be provided.

4.12 Where a pitched roof abuts a wall, additional high-level ventilation must be arranged to provide an open area at least equal to a 5 mm slot running the full length of the abutment.

4.13 The ventilated soffit boards meet NHBC requirements for protection against the ingress of birds, rodents or large insects.

4.14 The dimensions of the slots in the ventilated soffit boards are such that the risk of blockage is limited. However, blockage by insects and debris would impair their performance as vents and they should be examined occasionally and cleared if necessary.

5 Practicability of installation

The system can be readily installed by operatives experienced with this type of system.

6 Strength and stability

6.1 When installed in accordance with this Certificate, the system will withstand, without damage or permanent deflection, the wind loads likely to be encountered in the United Kingdom. In exposed locations care should be taken to ensure that all profiles are adequately fixed.

6.2 The system has adequate resistance to the hard and soft body impacts likely to occur in practice.

6.3 PVC-U gutters, as specified in BS EN 607 : 2004 may be screw-fixed directly to the 16 mm and Sumo fascia boards. Gutter bracket spacings must not exceed one metre; reduced spacings are recommended in the areas of high exposure eg Scottish Highlands. Other lightweight gutters may also be screw-fixed to the board provided the maximum bracket-loading, covered in BS EN 1462 : 2004, is not exceeded.

6.4 The 16 mm and Sumo fascia boards will support all eaves tiles in common usage in the UK (up to 10 kg load per 1 m length of fascia), provided they are installed in accordance with the requirements of this Certificate.

6.5 Apart from the exception detailed in section 6.4, the fascia boards are not loadbearing and must not be used independently to support fixtures such as roof tiles, other roof structure components or television aerials. Suitably fixed telephone wires and power cables may be run along the boards but the main brackets for these services should be fixed through the fascia to structurally sound timber.


7 Performance in relation to fire

7.1 When tested in accordance with BS 476-7 : 1997 the 9 mm cellular boards achieve a Class 1Y surface spread of flame rating and the 16 mm and Sumo cellular boards achieved a Class 1 rating.

7.2 On exposure to fire PVC-U tends to char and may fall away. The spread of flame along its surface is limited. It is unlikely that the roof trim system will significantly affect the overall fire performance of any roof in which it is installed.

7.3 Where it is normal practice to carry the eaves box over, between dwellings, it is important that the box is firestopped at compartment walls.


8 Maintenance

 8.1 The system can be cleaned by washing with water and mild detergent. Solvent-based cleaners must not be used. For the removal of more resistant stains, the Certificate holder's advice must be sought. The material can be cut and drilled, using normal woodworking tools, if repairs are required.

8.2 As with all PVC products, paint can adversely affect the impact strength of the cellular PVC-U sections, and the application of dark colours could lead to a risk of thermal distortion. Therefore painting must not be applied.

8.3 The slots of ventilated soffit boards should be examined periodically and cleared if necessary.

9 Durability

 9.1 Accelerated weathering tests indicate that Summit Cellular PVC-U is as durable as conventional solid PVC-U and the boards will retain adequate impact resistance for a period in excess of 35 years.

9.2 The system will retain its decorative function for the service life of the product with only minor changes in surface appearance.

9.3 Where the timber substrate is preservative treated with copper/chrome/boron, care must be taken to ensure that sufficient time is allowed for complete fixation of the preservative (approximately seven days) to avoid corrosion of screws and nails used to fix the components.

10 Reuse and recyclability

The PVC-U boards and trims can be readily recycled.

Installation

11 General

11.1 Installation of the Summit Cellular PVC-U Roofline System must be carried out in accordance with the Certificate holder's instructions and the requirements of this Certificate (see Figure 3).

11.2 The components of the system are worked using normal woodworking tools for cutting, drilling and shaping. Handsaws should have a fine-toothed blade. Hand-held and bench-mounted power tools with a carbide-tipped blade should be run at speeds similar to, or higher than, those normally used for timber.

11.3 When using power tools to cut or shape the components, eye protection and a coarse particle dust mask should be used.

11.4 Fascia, soffit and barge boards should be fixed to preservative-treated, structurally sound, solid timbers at centres not exceeding 600 mm, using the fixings specified by the Certificate holder.

11.5 Existing support timbers should be checked for soundness and, where necessary, replaced.

11.6 Sarking felt should be checked to ensure that it is in good condition and extends onto the verge rafter and over the fascia and into the gutter at the eaves. A continuous fillet, or eaves protection system should be installed at the eaves to prevent the felt sagging between the rafters. Damaged or worn felt should be replaced in accordance with good practice.

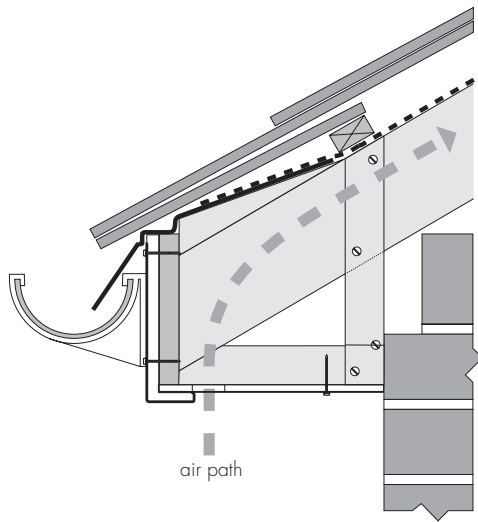
11.7 Normal precautions should be taken when working at roof level. The use of protective goggles when cutting and nailing is recommended.

11.8 Ventilating boards should be selected and installed so that the roof ventilation conforms to the relevant Building Regulations.

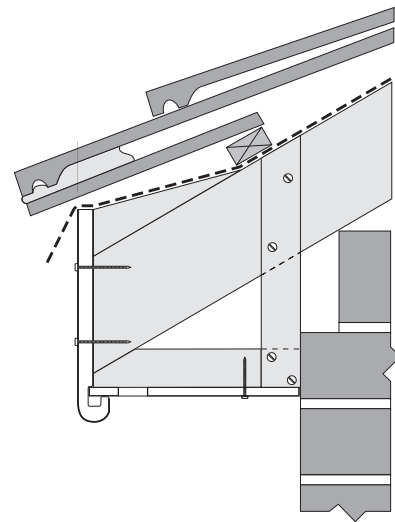
11.9 It is recommended that the 9 mm fascia boards are fixed over a sound backing board. This may be an existing fascia providing that this is inspected thoroughly and found to be in sound condition. Otherwise the existing fascias should be removed and replaced by minimum 12 mm thick marine grade plywood or other equivalent backing board.

11.10 A minimum of two 50 mm nails or two 40 mm screws per maximum 600 mm centres are used for fixing 9 mm fascias.

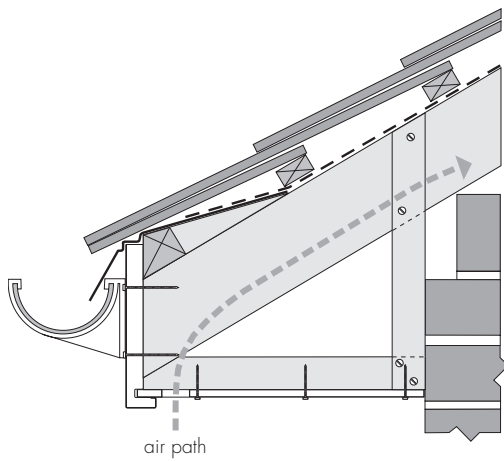
11.11 The 16 mm and Sumo fascia boards may be used directly to support PVC-U and other lightweight gutters (see section 6.3).



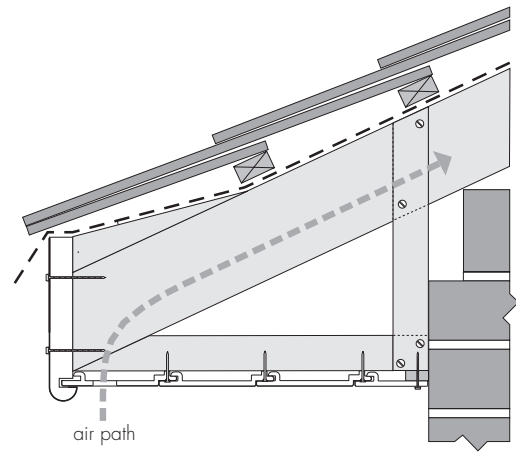
9 mm cover fascia with soffit board



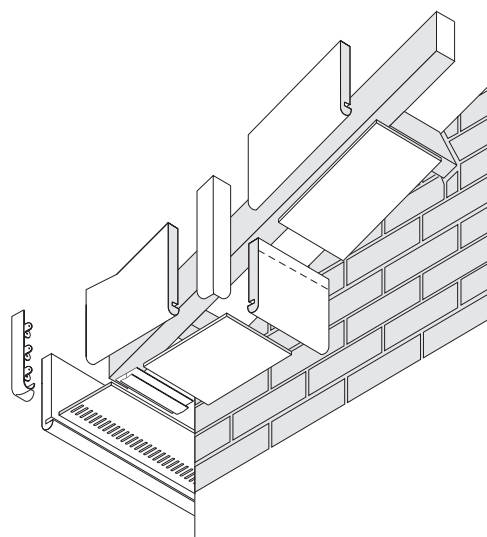
16 mm Bullnose fascia with soffit board



standard Sumo with soffit board

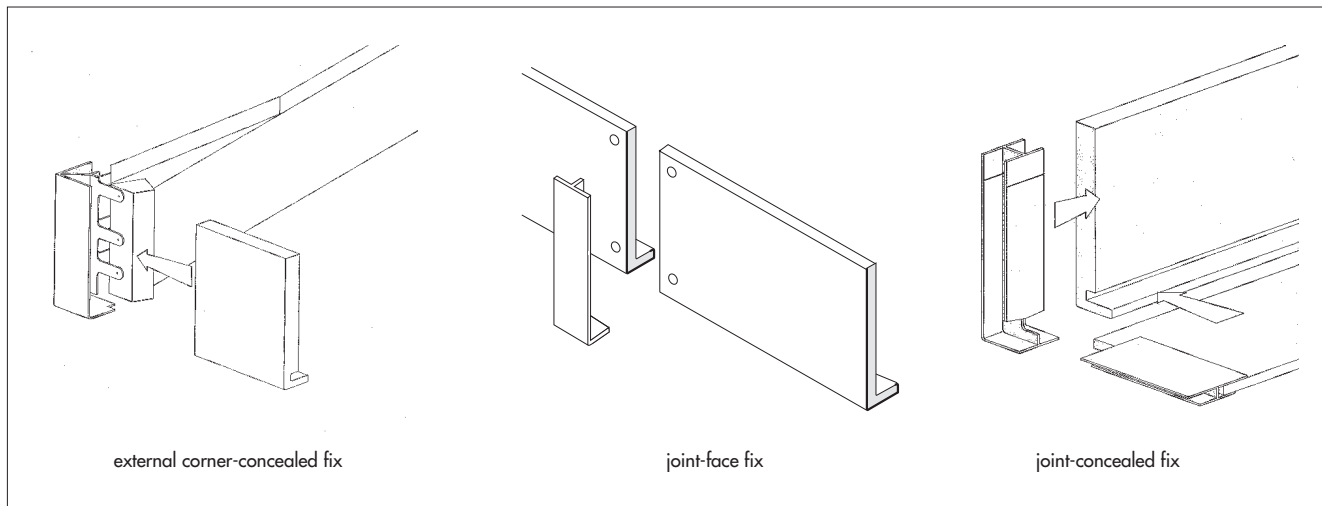


indicative cladding soffit detail



box end detail (cut fascia board)

Figure 3 Typical installation details (continued)



11.12 The 16 mm and Sumo fascia boards may be used to support eaves tiles (see section 6.4). In certain geographical/topographical locations, the eaves tiles will need to be restrained in order to resist wind uplift. Guidance on this fixing should be sought from the manufacturer of the eaves tile.

11.13 A minimum of two 65 mm nails at maximum 600 mm centres are used for fixing 16 mm and Sumo fascia boards to rafter feet.

12 Procedure

12.1 Selected boards and accessories are assembled and cut to size.

12.2 Rafter feet are cut to a line.

12.3 Noggings, soffit bearers, battens, eaves fillets, brackets and other additional timber supports are fixed to a sound substrate.

12.4 Protective films should be removed just prior to fixing by peeling off as nailing progresses along the board.

12.5 The summary for the installation details of fascia, soffit and barge boards (see sections 12.6 to 12.16) should be read with reference to the typical installation diagrams shown in Figure 3.

Fascias

12.6 Fascia boards are fixed to rafter feet, or where relevant to support timber at centres not exceeding 600 mm using at least two fixings per rafter. When the product is installed in particularly exposed locations it is recommended that the fascia boards are fixed to support timbers at maximum 400 mm centres.

12.7 Where necessary, fascia boards are joined between rafters using the appropriate joint trim cut to size. The trim is fixed to one board only allowing 4 mm gap for expansion at the end of each board. Depending on the particular trim, either a low modulus silicone sealant or a nail through the spine of the trim into the end of the board is used to secure the trim in place.

12.8 At external corners, the appropriate corner joint trim, cut to size, is used. The trim is either nailed to timber work through the holes provided in the inner lug of the trim using the specified 25 mm nail or face-fixed to one board with a low modulus silicone sealant depending on the particular trim. In each case, a 4 mm gap for expansion is left at the end of each board.

12.9 Internal corner joint trims are available for some boards and these are fitted by the procedure described in section 12.8 for external corners.

Soffit Boards

12.10 Soffit boards, fitted into or butted up against fascia boards, may be used in a variety of ways, as illustrated in Figure 6.

12.11 Soffit boards should be fixed into soffit bearers, battens secured to the wall, or the underside of the rafters at maximum 600 mm centres along their length, and 200 mm centres across their width, using 40 mm nails specified by the Certificate holder.

12.12 Where cladding boards are used to construct a soffit, the instructions specified for this product should be followed, starting at the fascia and working towards the building using the specified secret-fix annular ring-shank nails.

12.13 For soffit runs in excess of 5 m board ends are fitted into a soffit joint trim.

12.14 Soffit corner returns are made by cutting the boards to the appropriate angle and joining with a soffit joint trim.

Barge boards

12.15 Barge boards are installed by fixing fascia boards to a gable ladder or noggings, using the procedure given for fascia boards.

12.16 The barge board ridge joint should be made using an appropriate joint trim, depending on the barge board profile.

12.17 Eaves box ends should be made using the appropriate fascia board and cut to suit the roof pitch, fascia and soffit detail. The fascia boards are nailed to the roof timbers and the box end trims fixed to the PVC-U boards, with low modulus silicone sealant and, if necessary, additional nail trims.

12.18 Treated timber should be used to create the support framework required for the box end.

Technical Investigations

13 Tests

13.1 Tests were carried out on the cellular boards to determine impact strength.

13.2 As part of the original assessment, tests were carried out on the cellular boards and trims to determine:

- thickness of layers
- weight per linear metre
- IZOD impact strength
- dimensional stability
- impact strength/dehydrochlorination (DHC)/appearance after UV ageing
- impact strength/DHC/appearance after heat ageing
- impact strength/DHC/appearance after water soak ageing
- nail pull-through
- stress relief
- Vicat softening point
- ash content
- impact resistance
- tensile strength/elongation
- tensile strength/elongation
- heat reversion
- resistance to tile and gutter loading (16 mm and Sumo fascia boards only).
- density
- tensile impact strength
- modulus of elasticity
- acetone resistance

14 Investigations

14.1 The dimensions of the cellular boards and trims were checked.

14.2 An examination was made of existing data relating to:

- behaviour of product in fire
- colour stability
- impact strength before and after UV ageing.

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

14.4 Assessments were made of the resistance of the products to wind suction, the practicability of installation and the compatibility and efficiency of the sealants specified for use with the product were assessed.

14.5 As part of the assessment relating to ventilators for roof voids, the ventilation characteristics of the ventilated soffit boards were examined.

Bibliography

- BS 476-7 : 1997 *Fire tests on building materials and structures — Method of test to determine the classification of the surface spread of flame of products*
- BS 5250 : 2011 *Code of practice for control of condensation in buildings*
- BS EN 607 : 2004 *Eaves gutters and fittings made of PVC-U — Definitions, requirements and testing*
- BS EN 1462 : 2004 *Brackets for eaves gutters — Requirements and testing*
- BS EN 1995-1-1 : 2004 *Eurocode 5 : Design of timber structures — General — Common rules and rules for buildings*
- BS EN 10088-2 : 2005 *Stainless steels — Technical delivery conditions for sheet/plate and strip of corrosion resisting steels for general purposes*
- BS EN ISO 9001 : 2008 *Quality management systems — Requirements*
- ISO 14001 : 2004 *Environmental management systems*
- BRE Report (BR 262 : 2002) *Thermal insulation: avoiding risks*

15 Conditions

15.1 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.

15.2 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.

15.3 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.

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

15.5 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.

15.6 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.