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**Agrément
Certificate
No 91/2622**
*Third issue**

Designated by Government
to issue
European Technical
Approvals

SWISH CO-EXTRUDED CELLULAR PVC-U CLADDING SYSTEM

Façade légère en PVC
Verkleidung

Product



• THIS CERTIFICATE REPLACES CERTIFICATE No 87/1922 AND RELATES TO THE SWISH CO-EXTRUDED CELLULAR PVC-U CLADDING SYSTEM.

• The cladding is supplied in white planks with shiplap, open 'V', Tee Gee or Feather-Edge joints.

• The product has been assessed for use externally on buildings as a decorative and protective facing fixed horizontally, vertically (open V and Tee Gee only) or diagonally (open 'V' and Tee Gee only) on the following substrates:


(a) timber stud walls with or without sheathing

(b) brick or block masonry walls.

• It is essential that the product is installed in accordance with the manufacturer's instructions and the Design Data and Installation sections of this Certificate.

Regulations

1 The Building Regulations 2000 (England and Wales)

 The Secretary of State has agreed with the British Board of Agrément the requirements of the Building Regulations to which cladding systems can contribute in achieving compliance. In the opinion of the BBA, the Swish Co-extruded Cellular PVC-U Cladding System, if used in accordance with the provisions of this Certificate, will meet or contribute to meeting the relevant requirements.

Requirement: A1

Comment:

Loading

The product is acceptable for use as set out in sections 7.2 to 7.4 and 9.1 to 9.5 of this Certificate.

Requirement: B4(1)

Comment:

External fire spread — external walls

The product has a fire propagation index (I) of 14.3 and its acceptability for use is as set out in sections 10.1 to 10.5 of this Certificate.

Requirement: C4

Comment:

Resistance to weather and ground moisture

The product does not form a watertight or airtight facing. To achieve a waterproof barrier a breather membrane must be provided. See sections 11.1 to 11.4 of this Certificate.

Requirement: L1

Comment:

Conservation of fuel and power

The insulation values of the planks and the cavity formed between the planks and the backing wall reduce the overall U value with reference to Tables 1 and 5 of Approved Document L1. See section 12 of this Certificate.

continued

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Requirement:	Regulation 7	Materials and workmanship
Comment:		The product is acceptable. See section 14.1 of this Certificate.

2 The Building Standards (Scotland) Regulations 1990 (as amended)



In the opinion of the BBA, the Swish Co-extruded Cellular PVC-U Cladding System, if used in accordance with the provisions of this Certificate, will satisfy or contribute to satisfying the various Regulations and related Technical Standards as listed below.

Regulation:	10	Fitness of materials
Standard:	B2.1	Selection and use of materials and components
Comment:		The product is acceptable. See section 14.1 of this Certificate.
Regulation:	11	Structure
Standard:	C2.1	Stability
Comment:		The product is acceptable for use as set out in sections 7.2 to 7.4 and 9.1 to 9.5 of this Certificate.
Regulation:	12	Structural fire precautions
Standard:	D4.1	Concealed spaces (cavities)
Standards:	D6.3 to D6.5	Distance of sides of buildings from boundaries: unprotected areas
Comment:		The product has a fire propagation index (I) of 14.3 and its acceptability for use is as set out in sections 10.1 to 10.5 of this Certificate.
Regulation:	17	Resistance to moisture
Standard:	G3.1	Resistance to precipitation
Comment:		The product does not form a watertight or airtight facing. To achieve a weatherproof barrier a breather membrane must be provided. See sections 11.1 to 11.4 of this Certificate.
Regulation:	18	Resistance to condensation
Standard:	G4.1	Interstitial condensation
Standard:	G4.2	Surface condensation
Comment:		Providing there is provision for adequate drainage and ventilation behind the cladding, and a breather membrane is incorporated, as required, the product will comply with these Standards. See sections 7.7 and 11.1 to 11.4 of this Certificate.
Regulation:	22	Conservation of fuel and power
Standard:	J2.1	Standards for buildings in purpose group 1
Standard:	J3.1	Standards for buildings in purpose groups 2 to 7
Comment:		The thermal resistance of the planks and the cavity formed between the planks and the backing wall will contribute to achieving the required U value. See section 12 of this Certificate.

3 The Building Regulations (Northern Ireland) 1994 (as amended)



In the opinion of the BBA, the Swish Co-extruded Cellular PVC-U Cladding System, if used in accordance with the provisions of this Certificate, will satisfy or contribute to satisfying the various Building Regulations as listed below.

Regulation:	B2	Fitness of materials and workmanship
Comment:		The product is acceptable. See section 14.1 of this Certificate.
Regulation:	C5	Resistance to ground moisture and weather
Comment:		The product does not form a watertight or airtight facing. To achieve a weatherproof barrier a breather membrane must be provided. See sections 11.1 to 11.4 of this Certificate.
Regulation:	D1	Stability
Comment:		The product is acceptable for use as set out in sections 7.2 to 7.4 and 9.1 to 9.5 of this Certificate.
Regulation:	E8	External fire spread
Comment:		The product has a fire propagation index (I) of 14.3 and its acceptability for use is as set out in sections 10.1 to 10.5 of this Certificate.
Regulation:	F2	Conservation of fuel and power, the building fabric
Comment:		The insulation values of the planks and the cavity formed between the planks and the backing wall reduce the overall U value. See section 12 of this Certificate.

4 Construction (Design and Management) Regulations 1994

Information in this Certificate may assist the client, planning supervisor, designer and contractors to address their obligations under these Regulations.

See section: 8 *Practicability and installation* (8.1 and 8.2).

5 Description

5.1 The Swish Co-extruded Cellular PVC-U Cladding System is a protective and decorative facing for external use.

5.2 The system comprises white cladding planks (see Figure 1) and matching trims (see Figure 2).

5.3 The planks are composed of a cellular PVC-U core beneath an impact modified, outer weathering PVC-U skin. Both core and skin formulations include a tin-based stabiliser. The trims consist of extrusions in impact modified PVC-U or injection mouldings in acrylate styrene acrylonitrile.

5.4 The planks are available in four designs, shiplap, open 'V', Tee Gee and Feather-Edge, with the characteristics given in Table 1.

Table 1 Characteristics of planks

	Shiplap		Open 'V'		Tee Gee	Feather-Edge
	100 mm	150 mm	100 mm	150 mm		
standard length (m)	5	5	5	5	5	5
cover width (mm)	100	150	100	150	125	125
nominal thickness (mm)	6	7	7	7.5	6	6
nominal thickness of rigid outer surface (mm)	0.6	0.6	0.6	0.6	0.6	0.6
nominal weight (kgm ⁻¹)	0.45	0.63	0.53	0.76	0.61	0.60
average density (kgm ⁻³)	550	550	550	550	550	550

5.5 The planks are manufactured by co-extruding a high-impact PVC-U compound onto a foamable

PVC-U compound, cooling and forming to section and finally cutting to length. Cellular PVC-U (PVC-UE) is formed during the process by the evolution of gas from sodium bicarbonate.

5.6 The trims are manufactured using conventional extrusion and injection-moulding techniques.

5.7 Continuous quality control is exercised during manufacture. Checks include appearance, dimensions, weight per metre, heat reversion, heat ageing, and impact strength.

5.8 A4 (steel No 1.4401, BS EN 10088-2 : 1995) stainless steel, annular ring-shank nails are used to fix cladding planks and extruded trims to timber battens (secret fixing). Nails 25 mm long by 2 mm shank diameter, 33 mm by 2 mm and 50 mm by 3 mm are available for fixing planks and 25 mm by 2 mm for trims.

6 Delivery and site handling

6.1 Components are supplied in protective polyethylene sleeve wrapping, quantities per pack being commensurate with component size.

6.2 All cladding packs bear the Swish product marking, description, quantity, and the BBA identification mark incorporating the number of this Certificate.

6.3 Unloading should be carried out by hand to avoid damage to the components, which should be stored flat, in their protective wrapping, on a clean, level surface. Stacks must not exceed one metre in height and should be restrained to prevent collapse. To avoid damage it is recommended that additional protection is provided when the planks are stored in the open.

Figure 1 Cellular cladding planks

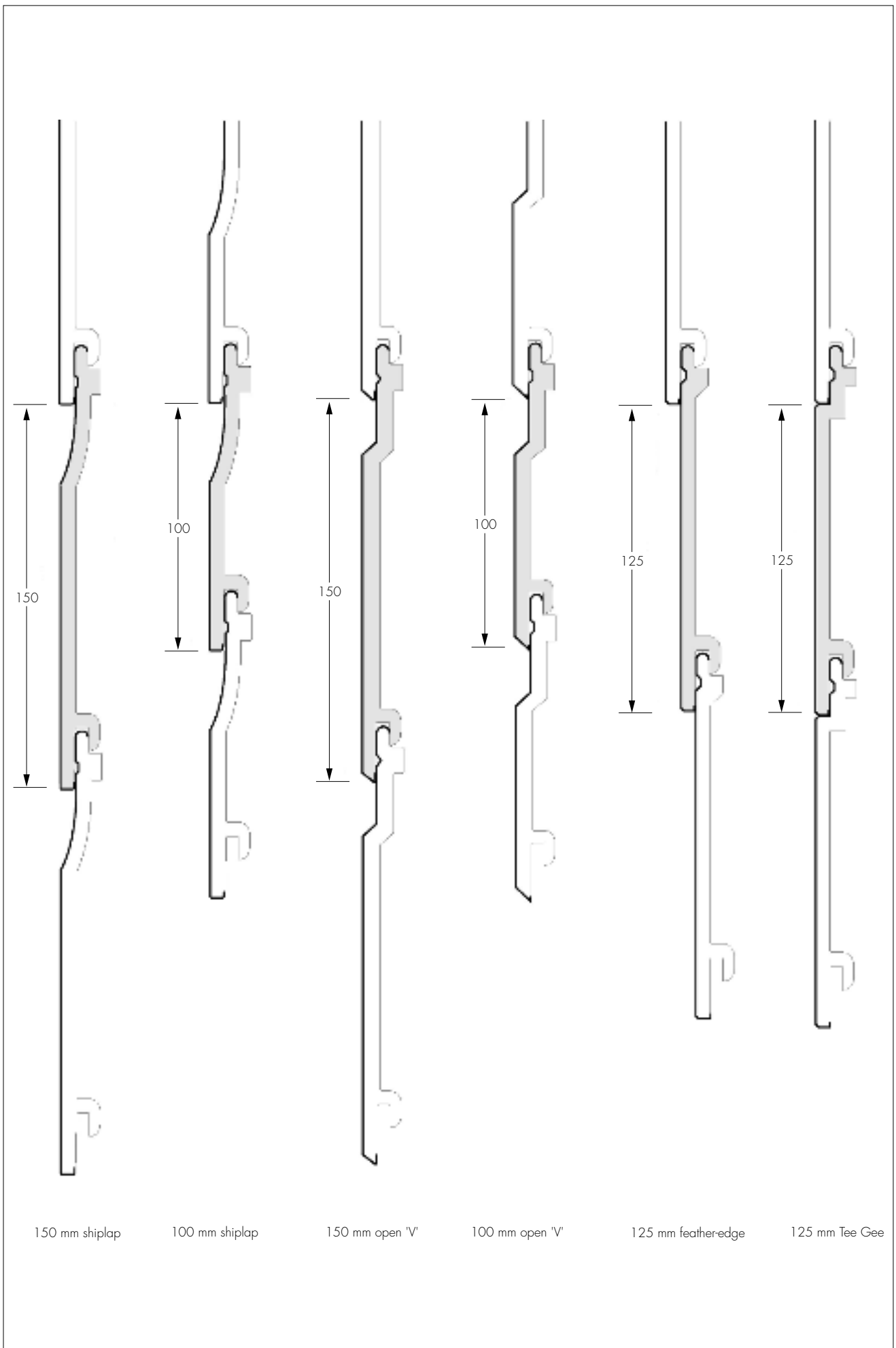
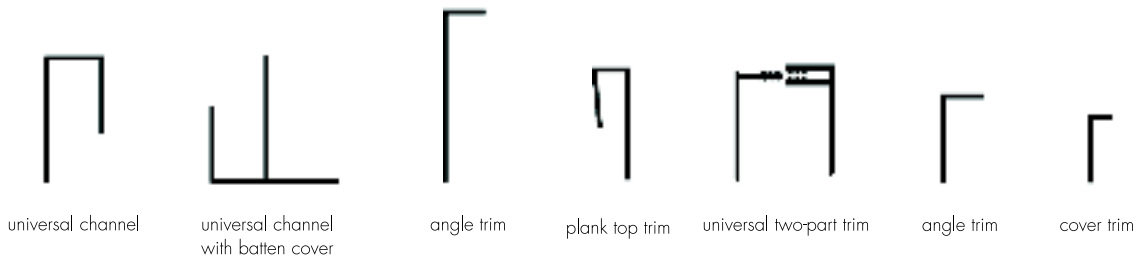


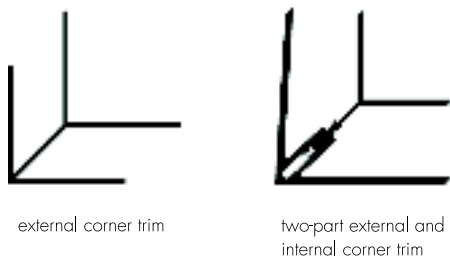
Figure 2 Trims

extruded trims (nominal thickness 1.5 mm)

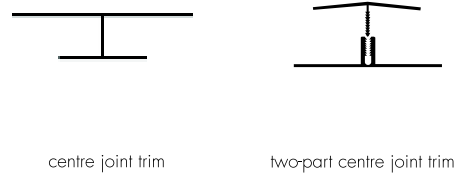
edge trims



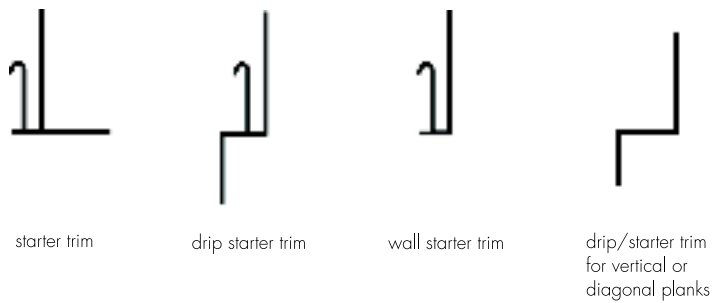
corner trims



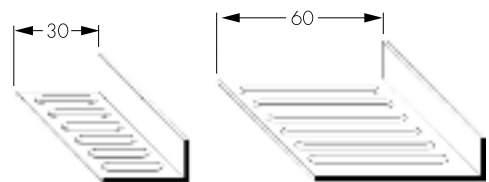
joint trims



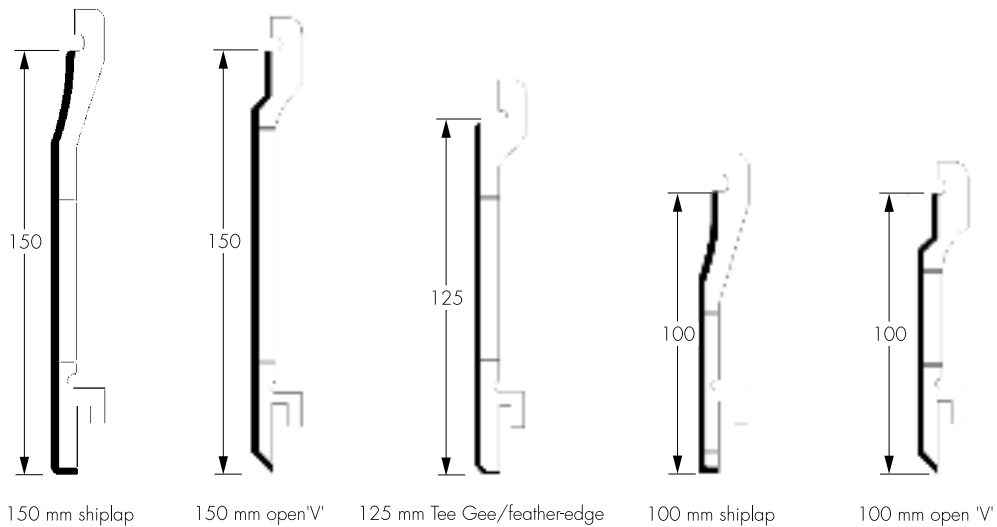
starter trims



angle ventilator trims



butt joint injection-moulded cover trims (nominal thickness 2 mm)



Design Data

7 General

7.1 The Swish Co-extruded Cellular PVC-U Cladding System is suitable for horizontal, vertical (open 'V' and Tee Gee only) and diagonal (open 'V' and Tee Gee only) fixing, as a decorative and protective external facing over a timber stud or masonry wall.



7.2 The designer should ensure that the strength and integrity of the intended substrate is commensurate with that required of the cladding system (see sections 7.3 and 7.4).

7.3 Brickwork or blockwork walls should be constructed in the conventional manner in accordance with one of the following technical specifications:

- (1) BS 5628-1 : 1992 and BS 5628-3 : 1985.
- (2) The Building Regulations 2000 (England and Wales), Approved document A1/2, Part C, Section 1.
- (3) The Building Standards (Scotland) Regulations 1990 (as amended), Technical Standards, Part C *Small Buildings Guide*.
- (4) The Building Regulations (Northern Ireland) 1994 (as amended), Technical Booklet D *Structure*.

7.4 Timber stud walls should be constructed in accordance with BS 5268-2 : 1996 and BS 5268-6.1 : 1988 and preservative treated in accordance with BS 5268-5 : 1989(1997). Studding and framing should be adequately supported by noggings to ensure rigidity.

7.5 When used over a sheathed timber stud frame or over a masonry substrate, the cladding should be fixed to preservative-treated, good quality timber battens (measuring not less than 19 mm by 38 mm, 25 mm by 38 mm recommended by the manufacturer) rigidly fixed to the studding (not unsupported sheathing) or masonry substrate at 600 mm centres or closer. Where a CCA (copper/chrome/arsenic) preservative is used, care should be taken to ensure that sufficient time is allowed for the complete fixation of the CCA preservative (approximately seven days) before the cladding is fixed.

7.6 Cellular PVC-U has a similar coefficient of thermal expansion to that of conventional rigid PVC-U. To avoid distortion in service, care should be taken not to install the cladding in extremes of temperature (ie below 5°C or above 25°C) and to allow adequate gaps for expansion (see sections 16.13, 16.17, 16.22 and 16.31).



7.7 In accordance with BS 8200 : 1985, a continuous 10 mm ventilation pathway (25 mm recommended by the manufacturer) must be maintained behind the cladding, with

minimum 5000 mm² ventilation slots per metre run at the top and bottom of the installation. This will also satisfy the NHBC requirement (see NHBC Standards, Chapter 6.2 : 1999) for a minimum 10 mm cavity behind cladding installed over timber sheathing. To comply with the requirement of Zurich Building Guarantees Technical Standards [Volume 2 *Superstructure* (page 60)] for cladding installed over timber sheathing, however, a minimum 19 mm cavity is required.

8 Practicability of installation

8.1 Swish co-extruded cellular PVC-U cladding can be installed easily under normal site conditions provided the work is carried out according to the guidance given in sections 15 and 16 of this Certificate. Care should be taken when installing long lengths of cladding above ground-floor level.

8.2 The components of the system are easy to work 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. When using power tools to cut or shape the product it is recommended that eye protection and a coarse-particle dust mask are used.

9 Strength and stability

Wind loading



9.1 Under wind loading the most likely mode of failure of the cladding will be by nail withdrawal under wind suction.

9.2 When installed in accordance with the requirements of this Certificate, onto battens at maximum 600 mm centres, Swish co-extruded cellular PVC-U cladding can withstand the dynamic wind pressures shown in Table 2.

Table 2 Permissible dynamic wind pressures (Pa)

Length of fixing nail (mm)	Plank cover width (mm)		
	100	125	150
25	1750	1400	1150
33	2650	2100	1750

9.3 The permissible dynamic wind pressure may be increased by reducing batten spacing, and/or using 50 mm fixing nails onto double battens. A reduction in batten spacing is particularly recommended at the corners of a building and in exposed locations. In common with all cladding, the adequacy of a proposed installation should always be checked by a qualified engineer, who should include in the check the adequacy of the fixing of battens to the substrate (outside the scope of this Certificate).

9.4 The cladding should not be taken into account when designing a timber stud wall to resist racking forces.

Resistance to impact

9.5 The cladding is not recommended for use at ground-floor level where severe impacts may occur. It is for use in locations above the zones of impact from people as described in categories E and F of Table 2 of BS 8200 : 1985.

10 Performance in relation to fire



10.1 When tested to BS 476-6 : 1989 Swish co-extruded cellular PVC-U cladding material achieved a fire propagation index (I) of 14.3 with sub-indices (i_1), (i_2) and (i_3) of 6.5, 6.9 and 0.9, respectively.

10.2 When tested in accordance with BS 476-7 : 1997, the co-extruded material has achieved a Class 1Y surface spread of flame rating.

10.3 Although the spread of flame across the surface of PVC is limited, the material does tend to char and may fall away when exposed to fire. Due consideration should always be given to any combustible materials behind the cladding, which may become exposed in the event of fire. Where necessary, cavity barriers should be incorporated behind the cladding, as required by the relevant building regulations.

10.4 When determining the minimum distance between the sides of a building and the relevant boundary, any area of wall (with the appropriate fire resistance) covered by cellular PVC-U cladding is counted as an unprotected area amounting to half the actual area of the cladding.

10.5 Subject to the provisions given in section 10.4 above, Swish co-extruded cellular PVC-U cladding is suitable for use on external walls other than those requiring a Class 0 external surface (eg external walls less than 1 m from a relevant boundary).

11 Air and water penetration



11.1 Swish co-extruded cellular PVC-U cladding is not air, water or water-vapour tight. When used on timber stud walls the product must be backed by a breather membrane acting as a vapour-permeable water barrier, incorporated behind the cladding under the supporting battens. This barrier must meet the requirements of BS 4016 : 1997 and have a vapour resistance less than 0.6 MNsg^{-1} when

calculated from the results of tests carried out at 25°C and a relative humidity of 75%, in accordance with BS 3177 : 1959(1995).

11.2 Where the product is used as a decorative facing attached to weathertight masonry walls, a water barrier is not necessary as the amount of water that will penetrate the cladding will be small and will not have an adverse effect on the wall.

11.3 If the product is used in the renovation of a masonry wall which is structurally sound but not fully weathertight, the use of a vapour-permeable water barrier is advisable.

11.4 Provision must always be made to allow water that has penetrated behind the cladding to drain away.

12 Thermal insulation



An improvement in U value (thermal transmittance) of the external wall will be obtained by the use of the system, due in part to the cellular structure of the foam and in part to the air space between the cladding and the backing wall. It is not possible however to provide values for the improvement achievable due to the number of factors involved in any particular installation.

13 Maintenance

13.1 The cladding can be washed with water and detergent. Solvent-based cleaners should not be used.

13.2 Replacement of a damaged section can be carried out but may require the temporary removal of undamaged planks above the damaged area.

13.3 Paints can cause premature embrittlement of PVC-U products and the application of dark colours to PVC-U cladding could lead to risk of thermal distortion. Therefore, painting of the product is not recommended.

14 Durability



14.1 Accelerated weathering tests and limited natural exposure trials indicate that Swish co-extruded cellular PVC-U cladding is as durable as conventional rigid PVC, and will retain adequate impact resistance over a period in excess of 20 years.

14.2 The product will retain its decorative function for a period of 20 years with only minor changes in surface appearance. However, staining will result from contact with creosote or bitumen.

Installation

15 General

15.1 Installation must be carried out in accordance with the manufacturer's instructions and the requirements of this Certificate.

15.2 Provision should be made for adequate drainage and ventilation behind the cladding.

15.3 The product should be installed using the fixings recommended by the manufacturers (see section 5.8).

16 Procedure (see Figure 4)

Preparation

16.1 Before installation commences the cladding operation should be thoroughly planned and prepared.

16.2 A final inspection of the substrate should be made to confirm that it is as prescribed in section 7.2 of this Certificate.

16.3 Appropriate cladding planks and trims should be selected and assembled (see Figures 1, 2 and 3). For vertical and diagonal cladding only open 'V' or Tee Gee should be used.

16.4 The appropriate battens (selected and treated in accordance with section 7.5) should be fixed at centres not exceeding 600 mm.

16.5 For horizontal cladding, vertical battens are required at the ends of each section, at the sides of

windows and at joins between planks. Horizontal battens are not recommended at the top/bottom of either the installation or window/door openings, where they may restrict ventilation and drainage. Similarly, the use of horizontal trims at the base of the cladding must not reduce the ventilation opening below 5000 m² per metre run (see section 7.7).

16.6 For vertical cladding, horizontal battens are required at the top and bottom of each section, at the top and bottom of each window, and at any joins between planks. In this application, ventilation and drainage is provided for by ensuring a 5 mm clearance between plank and trims at each end (see section 16.22).

16.7 For diagonal cladding, battens are required around the whole area to be clad and around openings. Adequate drainage holes must be provided as described in section 16.6.

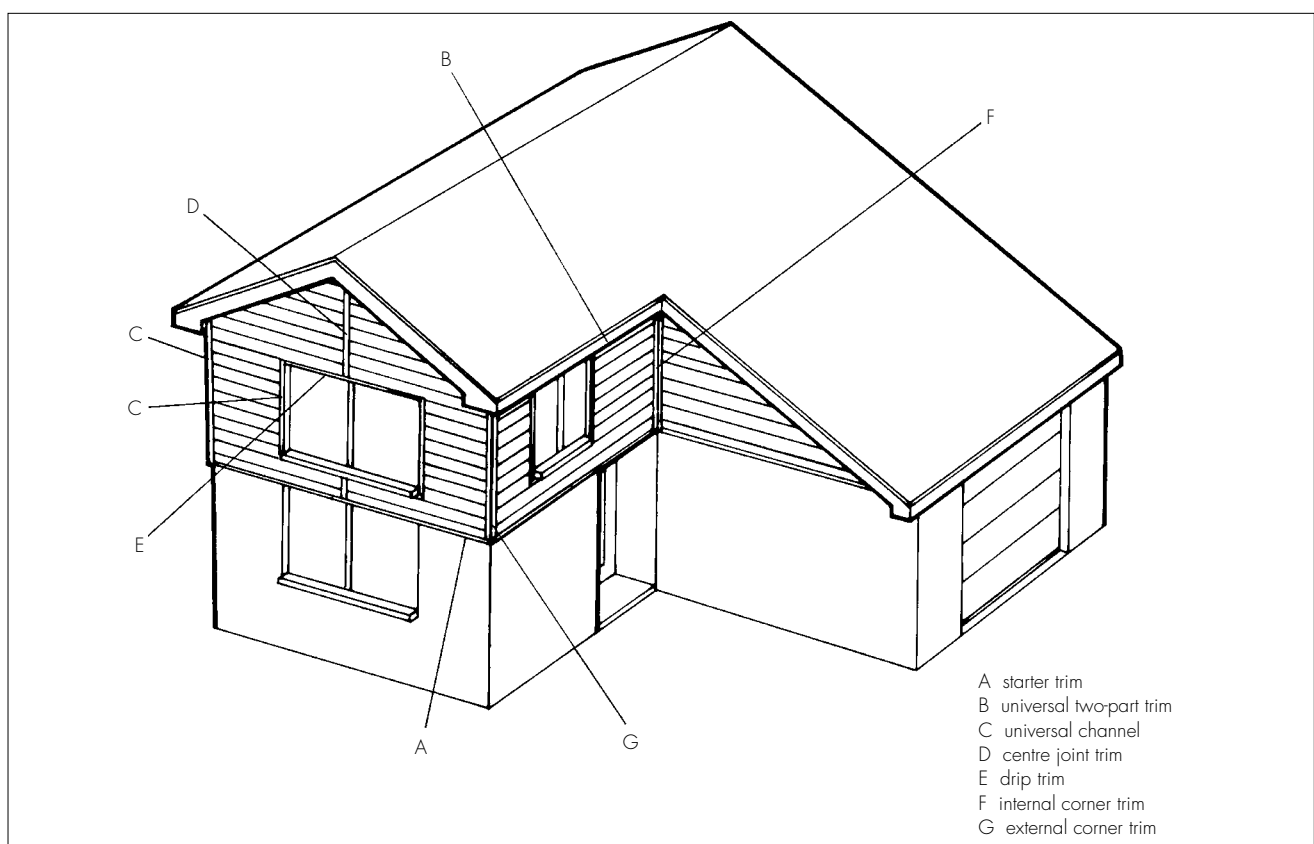
16.8 On non-weatherproof substrates a vapour-permeable water barrier must be installed behind battens.

16.9 Windowheads and other protrusions should be protected by a suitable weatherproof membrane or flashing.

Horizontal installation (see Figure 4)

16.10 Working from a level line, a starter trim is fixed to timber battens. Care should be taken to ensure that the starter trim does not obstruct the opening required for drainage and ventilation at the base of the cladding.

Figure 3 Use of trims



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16.11 All vertical trims, followed by top trims, are then fixed to perimeter battens (including battens around windows).

16.12 Where two-part trims are required, only the back half is fixed at this stage.

16.13 The bottom cladding plank is then located firmly in the starter trim and vertical trims, and fixed into place using the specified stainless steel nails, starting at one end or working from the centre outward, nailing into each batten in turn. Nails should be inserted only along the marked line in each plank. At the end of each plank a 5 mm gap should be allowed for expansion (ie 10 mm between boards).

16.14 Where necessary, trims and planks are cut to size and shape with a fine-toothed saw.

16.15 Subsequent planks are fitted into the preceding planks, ensuring that the tongue-and-groove joint is firmly closed, and nail heads are concealed by the overlap.

16.16 If necessary, the top plank is cut to fit the remaining space. Where this occurs, packing pieces taken from cladding offcuts should be placed behind the cut plank at each fixing centre.

16.17 Where sections longer than 5 metres are to be clad, butt joints of adjacent cladding planks should be concealed by either a butt joint cover or centre joint trim; a 10 mm expansion gap should be allowed between the planks, both ends of which should be securely fixed to battens. Butt joint trims should be fitted at least two fixing centres away from a panel edge and with continuous boards immediately above and below the joint.

16.18 Where two-part trims have been used the installation is completed by fastening the front part of the trim.

Vertical installation (see Figure 4)

16.19 Vertical cladding is installed using the principles outlined for horizontal installation.

16.20 The appropriate trims are fitted to the perimeter of the elevation to be clad, and around window and door openings. A drip trim is used at the base of the cladding.

16.21 Starting from one edge the plank is positioned, using a plumb line, and nailed at the fixing centres.

16.22 To ensure that cladding remains flat, all nailing should be undertaken progressively from the centre working outward on each plank. All plank ends must be secret-nailed into the trims, allowing 5 mm clearance for ventilation, drainage and expansion at each end.

16.23 Subsequent planks are fitted over the preceding planks, ensuring that the tongue-and-groove joint is firmly closed so that the nail heads are concealed by the overlap.

16.24 The finishing plank should be cut to include the groove and fitted onto the tongue of the penultimate plank. It should be nailed through packing at every fixing centre along the cut edge. (For aesthetic reasons it is recommended that the installation is planned so that the width of the starting and finishing planks is the same. That is, that both are either full planks or cut planks of the same width).

16.25 Care must be taken to ensure that the nails through the cut planks are positioned so that the trim sections cover the nail heads.

16.26 Where two-part trims have been used, the installation is completed by fastening the front part of the trim to the rear part.

Diagonal installation (see Figure 4)

16.27 Diagonal cladding is installed using the principles outlined for *Vertical installation*.

16.28 Horizontal battens are fixed to the substrate at spacings to give a 600 mm distance between fixing centres on the diagonal cladding.

16.29 The appropriate trims are fixed to battens; use of two-part trims facilitates the installation. Only the back half of these trims is fixed at this stage.

16.30 The cladding planks are cut to size and fixed across the section at the required angle, starting with the smallest plank at the bottom corner.

16.31 To ensure that cladding remains flat, all nailing should be undertaken progressively from the centre working outward on each plank. All plank ends must be secret-nailed into the trims, allowing 5 mm clearance for expansion at each end.

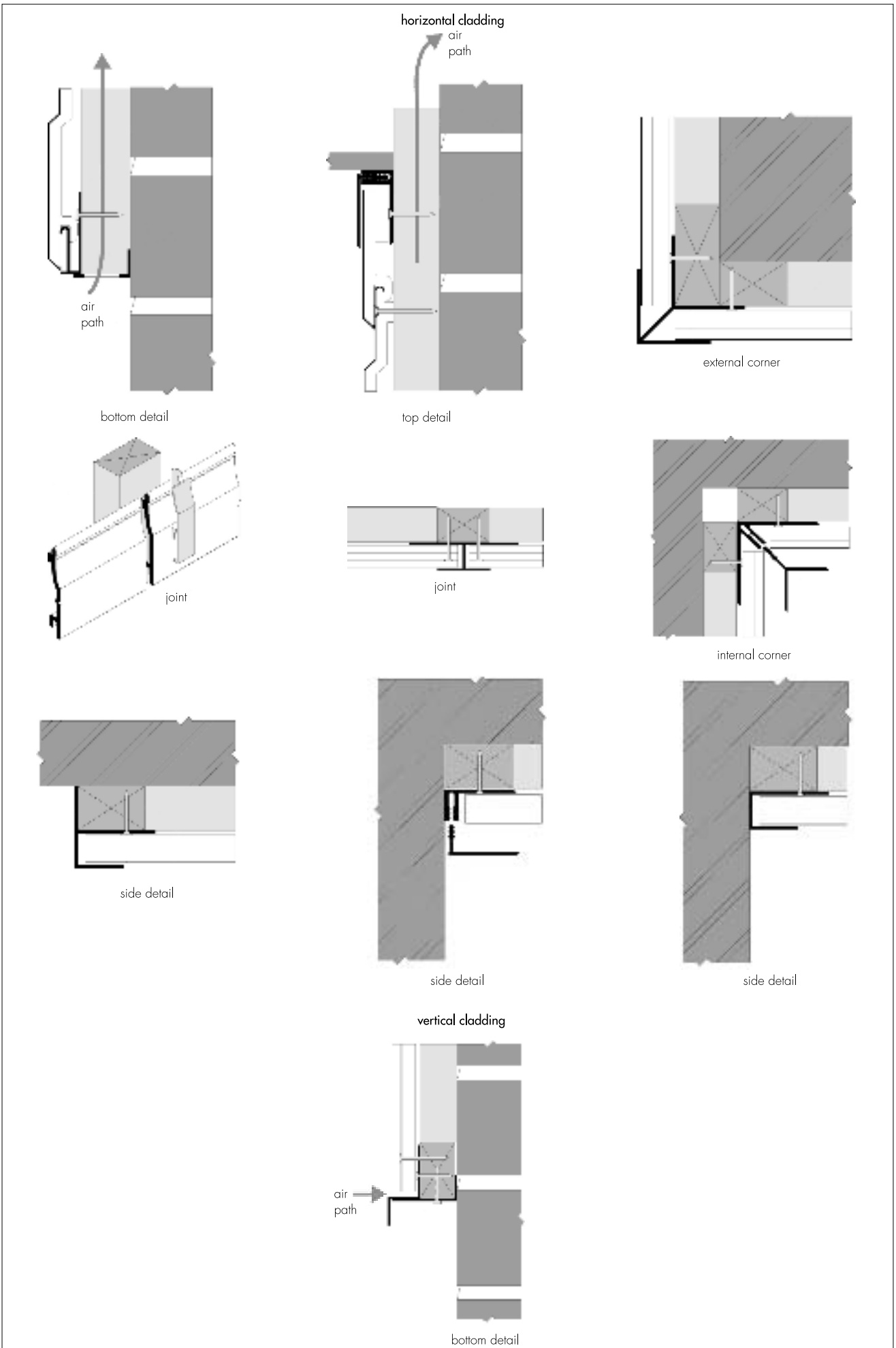
16.32 Subsequent planks are fitted into the preceding planks, ensuring that the tongue-and-groove joint is firmly closed so that the nail heads are concealed by the overlap.

16.33 The finishing plank should be cut to include the groove and fitted onto the tongue of the penultimate plank. It should be nailed through packing onto perimeter battens.

16.34 Care must be taken to ensure that the nails through the cut planks are positioned so that the trim sections cover the nail heads.

16.35 Where two-part trims have been used the installation is completed by fastening the front part of the trim.

Figure 4 Typical installation details



The following is a summary of the technical investigations carried out on the Swish Co-extruded Cellular PVC-U Cladding System.

17 Tests

17.1 Tests were carried out on planks to determine impact resistance.

17.2 As part of the assessment leading to the Second issue of Certificate No 91/2622 tests were carried out on planks and trims to determine:

Vicat softening temperature
thickness of layers
weight per linear metre
ash content
Izod impact strength (ISO 180 : 1982)
impact resistance (cladding panel)
dimensional stability
tensile strength/elongation
modulus of elasticity
Izod impact strength and appearance after UV ageing
Izod impact strength and appearance after heat ageing
nail pull-through
heat reversion
acetone resistance
stress relief.

17.3 As part of the assessment resulting in the first issue of Certificate No 91/2622 tests were carried out on extruded trims to determine:

impact strength/DHC (dehydrochlorination)/
appearance after UV ageing
impact strength/DHC/appearance after heat ageing
impact strength/DHC/appearance after water soak.

17.4 As part of the assessment resulting in the issue of Certificate No 87/1922 performance tests were carried out on panels clad with Swish cellular cladding to investigate weathertightness and air pressure leakage of the installation.

18 Other investigations

18.1 The dimensions of cladding planks and trims were checked.

18.2 An examination was made of data relating to:
behaviour of the cladding in fire
colour stability
impact resistance before and after UV ageing.

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

18.4 The practicability of installation was assessed.

18.5 As part of the assessment resulting in the Second issue of Certificate No 91/2622, permissible dynamic wind pressures were calculated from nail pull-through and withdrawal data.

BS 476 *Fire tests on building materials and structures*

BS 476-6 : 1989 *Method of test for fire propagation for products*

BS 476-7 : 1997 *Method of test to determine the classification of the surface spread of flame of products*

BS 3177 : 1959(1995) *Method for determining the permeability to water vapour of flexible sheet materials used for packaging*

BS 4016 : 1997 *Specification for flexible building membranes (breather type)*

BS 5268 *Structural use of timber*

BS 5268-2 : 1996 *Code of practice for permissible stress design, materials and workmanship*

BS 5268-5 : 1989(1997) *Code of practice for the preservative treatment of structural timber*

BS 5268-6 *Code of practice for timber frame walls*

BS 5268-6.1 : 1996 *Dwellings not exceeding four storeys*

BS 5628 *Code of practice for use of masonry*

BS 5628-1 : 1992 *Structural use of unreinforced masonry*

BS 5628-3 : 1985 *Materials and components, design and workmanship*

BS 8200 : 1985 *Code of practice for design of non-loadbearing external vertical enclosures of buildings*

BS EN 10088 *Stainless steels*

BS EN 10088-2 : 1995 *Technical delivery conditions for sheet/plate and strip for general purposes*

ISO 180 : 1982 *Plastics — Determination of Izod impact strength of rigid materials*

19 Conditions

19.1 This Certificate:

- (a) relates only to the product that is described, installed, used and maintained as set out in this Certificate;
- (b) is granted only to the company, firm or person identified on the front cover — no other company, firm or person may hold or claim any entitlement to this Certificate;
- (c) has to be read, considered and used as a whole document — it may be misleading and will be incomplete to be selective;
- (d) is copyright of the BBA.

19.2 References in this Certificate to any Act of Parliament, Regulation made thereunder, Directive or Regulation of the European Union, Statutory Instrument, Code of Practice, British Standard, manufacturers' instructions or similar publication, shall be construed as references to such publication in the form in which it was current at the date of this Certificate.

19.3 This Certificate will remain valid for an unlimited period provided that the product and the manufacture and/or fabricating process(es) thereof:

- (a) are maintained at or above the levels which have been assessed and found to be satisfactory by the BBA;

(b) continue to be checked by the BBA or its agents; and

(c) are reviewed by the BBA as and when it considers appropriate.

19.4 In granting this Certificate, the BBA makes no representation as to:

- (a) the presence or absence of any patent or similar rights subsisting in the product or any other product;
- (b) the right of the Certificate holder to market, supply, install or maintain the product; and
- (c) the nature of individual installations of the product, including methods and workmanship.

19.5 Any recommendations relating to the use or installation of this product which are contained or referred to in this Certificate are the minimum standards required to be met when the product is used. They do 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 or in the future; nor is conformity with such recommendations to be taken as satisfying the requirements of the 1974 Act or of any present or future 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 installation and use of this product.



In the opinion of the British Board of Agrément, the Swish Co-extruded Cellular PVC-U Cladding System is fit for its intended use provided it is installed, used and maintained as set out in this Certificate. Certificate No 91/2622 is accordingly awarded to SBP Limited.

On behalf of the British Board of Agrément

A handwritten signature in black ink, appearing to read 'P. Q. Newson'.

Date of Third issue: 23rd March 2001

Chief Executive

**The original Certificate was issued on 27th March 1992. This amended version includes a change of Certificate holder's name, address and telephone and facsimile numbers, updated Building Regulations references and Conditions of Certification and addition of CDM Regulations.*