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Agrément Certificate
96/3217
Product Sheet 3

GLAZPART TRICKLE VENTILATORS

GLAZPART TRICKLE VENTILATORS 2000 LETTERBOX MODULAR VENTS

PRODUCT SCOPE AND SUMMARY OF CERTIFICATE

This Certificate replaces Certificate 93/2976 and relates to Glazpart Trickle Ventilators 2000 Letterbox Modular Vents, a range of window ventilators for use in new and existing windows for the provision of trickle ventilation in both domestic and commercial buildings.

AGRÉMENT CERTIFICATION INCLUDES:

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



KEY FACTORS ASSESSED

Ventilation — the products can contribute to satisfying the natural background ventilation requirements of the national Building Regulations. The equivalent area of the vents was also determined (see section 5).

Weathertightness — use of the products will not affect the ability of a wall or roof to comply with national Building standards (see section 6).

Condensation — the products can contribute to limiting the risk of surface and interstitial condensation (see section 7).

Durability — the products will have a life equivalent to that of the windows into which they are fitted (see section 10).

The BBA has awarded this Agrément 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

A handwritten signature in black ink, appearing to read 'Chris Hunt'.

Chris Hunt

Head of Approvals — Physics

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

Greg Cooper

Chief Executive

Date of First issue: 28 January 2010

Originally certified on 9 February 1996

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, Glazpart Trickle Ventilators 2000 Letterbox Modular Vents, if used in accordance with the provisions of this Certificate, will meet or contribute to meeting the relevant requirements of the following Building Regulations:



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

Requirement: C2(b)(c)	Resistance to moisture
Comment:	Externally mounted components will not affect the ability of a wall to meet this Requirement. See sections 6.5 and 7 of this Certificate.
Requirement: F1	Means of ventilation
Comment:	The products can contribute to meeting this Requirement. See section 5.1 of this Certificate.
Requirement: Regulation 7	Materials and workmanship
Comment:	The components are acceptable. See section 10 and the <i>Installation</i> part of this Certificate.



The Building (Scotland) Regulations 2004 (as amended)

Regulation: 8(1)	Fitness and durability of materials and workmanship
Comment:	The products can contribute to a construction meeting this Standard. See section 10 and the <i>Installation</i> part of this Certificate.
Regulation: 9	Building standards – construction
Standard: 3.10	Precipitation
Comment:	Externally-mounted components will not affect the ability of a wall to satisfy this Standard, with reference to clauses 3.10.1 ⁽¹⁾⁽²⁾ . See section 6.5 of this Certificate.
Standard: 3.14	Ventilation
Comment:	The products can contribute to satisfying this Standard, with reference to clauses 3.14.1 ⁽¹⁾⁽²⁾ , 3.14.2 ⁽¹⁾⁽²⁾ , 3.14.3 ⁽²⁾ , 3.14.4 ⁽¹⁾⁽²⁾ , 3.14.5 ⁽¹⁾ , 3.14.7 ⁽¹⁾ , 3.14.9 ⁽²⁾ and 3.14.11 ⁽¹⁾ . See section 5.1 of this Certificate.
Standard: 3.15	Condensation
Comment:	The products will contribute to minimising the risk of surface condensation, with reference to clause 3.15.1 ⁽¹⁾ . See section 7 of this Certificate.
	(1) Technical Handbook (Domestic).
	(2) Technical Handbook (Non-Domestic).



The Building Regulations (Northern Ireland) 2000 (as amended)

Regulation: B2	Fitness of materials and workmanship
Comment:	The products are acceptable. See section 10 and the <i>Installation</i> part of this Certificate.
Regulation: C4(b)	Resistance to ground moisture and weather
Comment:	Externally mounted components will not affect the ability of a wall to satisfy this Regulation. See section 6.5 of this Certificate.
Regulation: K2	Means of ventilation
Comment:	The products can contribute to satisfying this Regulation. See section 5.1 of this Certificate.

Construction (Design and Management) Regulations 2007

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

In the opinion of the BBA, there is no information in this Certificate which relates to the obligations of the client, CDM co-ordinator, designer and contractors under these Regulations.

NHBC Standards 2008

NHBC accepts the use of Glazpart Trickle Ventilators 2000 Letterbox Modular Vents, when installed and used in accordance with this Certificate, in relation to *NHBC Standards, Chapter 6.7 Doors, windows and glazing.*

Technical Specification

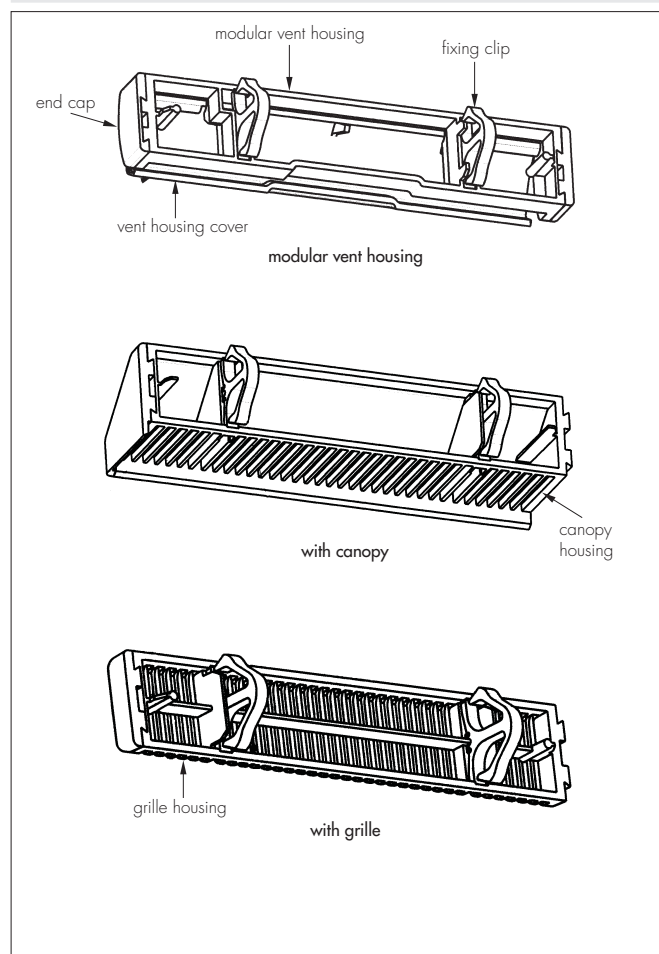
1 Description

1.1 The Glazpart Trickle Ventilators 2000 Letterbox Modular Vents ventilator (see Table 1) can be installed individually, or up to four units may be clipped together side by side in the top of a window frame to give the required ventilation area. The products are injection-moulded from UV stabilised PVC-U and are available in white, black or brown.

Model	Component
2000 Vent	internal vent chassis assembly, external hood with flyscreen or flat grille

1.2 The vent chassis assembly is fixed internally and includes a vent closure, adjustable to control the amount of ventilation. The vent chassis is supplied with either an external hood with flyscreen, or with a flat grille. The flat grille may be installed horizontally under a suitable self-draining overhead canopy (see section 1.3) fixed to the top exterior of a window. Each ventilator is supplied with fixing clips and end caps (see Figure 1).

Figure 1 2000 Vent



1.3 Integral moulded, self-draining overhead canopies are available if required.

1.4 All components are subject to regular inspection during production, checks include dimensions and fit. All finished products are subject to regular inspection for function.

2 Delivery and site handling

2.1 The products are delivered to site, sealed within polythene tubes and packed in cardboard boxes, or in cardboard boxes only.

2.2 The products should be kept in clean, dry surroundings and protected from mechanical damage.

Assessment and Technical Investigations

The following is a summary of the assessment and technical investigations carried out on Glazpart Trickle Ventilators 2000 Letterbox Modular Vents.

Design Considerations

3 Use

3.1 The products, when used in aluminium or PVC-U windows, will provide the required trickle ventilation while maintaining weathertightness.

3.2 The opening area for each ventilator in the range is given in Table 2.

Table 2 Opening areas

Model	Opening area (mm ²)
2000 Vent	2000

3.3 When tested in accordance with BS EN 20140-10 : 1992, and mounted in an aperture within a brick dividing wall, the ventilators showed $D_{n,e,w}$ (C_{tr}) values with a difference in a range from 2 dB to 5 dB between opened and closed positions respectively. The total sound insulation achieved in practice will be dependent upon the structure within which the ventilator is located and the position of the ventilator in the structure.

4 Practicability of installation

The products are designed to be installed by a competent general builder, or a contractor, experienced with these types of products.

5 Ventilation



5.1 The use of appropriate ventilators, chosen in accordance with the equivalent areas (to BS EN 13141-1 : 2004) and detailed in Table 3 will contribute to satisfying the background ventilation requirements of the national Building Regulations:

England and Wales — Approved Document F

Scotland — Mandatory Standard 3.14, clauses 3.14.1⁽¹⁾⁽²⁾, 3.14.2⁽¹⁾⁽²⁾, 3.14.3⁽²⁾, 3.14.4⁽¹⁾⁽²⁾, 3.14.5⁽¹⁾, 3.14.7⁽¹⁾, 3.14.9⁽²⁾ and 3.14.11⁽¹⁾

(1) Technical Handbook (Domestic).

(2) Technical Handbook (Non-Domestic).

Northern Ireland — Technical Booklet K.

Table 3 Equivalent area (to BS EN 13141-1 : 2004) of the ventilators

Model	Equivalent area (mm ²) at 1 Pa pressure difference
Modular 2000 + Hood	1292
Modular 2000 + Grille	1485

5.2 For a combination of Modular 2000 vents, the equivalent area may be determined by multiplying the EQA for one vent (as shown in Table 3) by the number of vents.

6 Weathertightness

6.1 The inclusion of a trickle ventilator in a window will affect its air permeability and may affect the watertightness, two of the factors that determine the exposure category (as defined in BS 6375-1 : 2004) assigned to the window.

6.2 The products were tested for air permeability under the test conditions set out in BS 5368-1 : 1976, the results are given in Table 4. Results for three, two and one ventilators may be estimated by multiplying the results in Table 4 by 0.75, 0.5 and 0.25 respectively.

Table 4 Air permeability test results

Pressure (Pa)	Air leakage (m ³ .h ⁻¹)	
	Four 2000 Vents side by side with:	
	Flyscreened hood	Overhead canopy flat grille under
50	1.4	1.8
100	2.8	3.1
150	2.7	5.5
200	3.3	6.5
250	3.9	7.6
300	4.7	8.7
400	6.1	11.0
500	8.0	10.5
600	9.4	12.5


6.3 When considering the air permeability of a window in which the product is installed, the figures given in Table 4 should be added to the results obtained for the window alone, when tested for air permeability in accordance with BS EN 1026 : 2000 or MOAT No 1 : 1974.

6.4 The products were tested for watertightness in accordance with the test conditions set out in BS 5368-2 : 1980. The gradings determined in accordance with BS 6375-1 : 2004 and MOAT No 1 : 1974, are given in Table 5.

Table 5 Watertightness gradings — Four 2000 Vent ventilators side by side with:

	Pressure at which leakage occurred (Pa)	BS 6375-1 Test pressure class	MOAT No 1 Watertightness class
Flyscreened hood	No leakage at 600	300	E ₄ ⁽¹⁾
Flat grille under overhead canopy	No leakage at 600	300	E ₄ ⁽¹⁾

(1) E₄ indicates no water leakage occurring at a differential pressure of 500 Pa.

 6.5 Use of the products will not affect the ability of a wall or roof to comply with national Building Standards:

England and Wales — Approved Document C


Scotland — Mandatory Standard 3.10, clauses 3.10.1⁽¹⁾⁽²⁾

(1) Technical Handbook (Domestic).

(2) Technical Handbook (Non-Domestic).

Northern Ireland — Technical Booklet C.

7 Condensation

 The use of the products can reduce the risk of surface condensation and contribute to satisfying the requirements of the national Building Standards:

England and Wales — Approved Document C

Scotland — Mandatory Standard 3.15, clause 3.15.1⁽¹⁾.

(1) Technical Handbook (Domestic).

8 Security

Provided the products are appropriately located (ie away from such features as handles, catches) they will not affect the security of the windows in which they are installed.

9 Maintenance

As the products are confined within the window and it has suitable durability (see section 10), maintenance is not required.

10 Durability



The products will have a life equivalent to that of the windows into which they are fitted.

Installation

11 General

11.1 Installation of Glazpart Trickle Ventilators 2000 Letterbox Modular Vents does not present difficulties provided the installation instructions are followed.

11.2 Those windows supplied with ventilators fitted do not incorporate reinforcement in the same frame member as the ventilators. Reinforcements in the other frame members are isolated by the extrusion. When fitting ventilators to non-vented PVC-U windows it is important to determine, before drilling, whether the frame member contains reinforcement. If reinforcement is present, installation should not be attempted as the size of the slot would weaken it and corrosion could be caused by exposure to the vented air.

12 Procedure

When fitting the letterbox ventilators, 19 mm ventilation slots should be milled in the head or top rail of the sash (using the template provided), sized as per the installation instructions. The use of separate slots for each 2000 vent is recommended, ie leave 6.5 mm bridging between modules. The vent chassis assembly is snap-fitted internally over the channels using the clips provided. The flyscreened hood or flat grille is then snap-fitted externally, singly or in combination, using the clips provided. Once fitted the ventilators cannot be removed.

Technical Investigations

13 Tests

As part of the assessment resulting in the issue of the Certificate, tests were carried out on Glazpart Trickle Ventilators 2000 Letterbox Modular Vents to determine:

- air permeability
- watertightness.

14 Investigations

14.1 A re-examination was made of data on which the previous Certificate was based.

14.2 Regular factory inspections have been carried out to ensure that quality is being maintained.

14.3 An examination was made of test data on sound reduction.

14.4 An examination was done of the equivalent areas of the vents to BS EN 13141-1 : 2004.

Bibliography

BS 5368-1 : 1976 *Methods of testing windows — Air permeability test*

BS 5368-2 : 1980 *Methods of testing windows — Watertightness test under static pressure*

BS 6375-1 : 2004 *Performance of windows and doors — Classification of weathertightness and guidance on selection and specification*

BS EN 1026 : 2000 *Windows and doors — Air permeability — Test method*

BS EN 13141-1 : 2004 *Ventilation for buildings — Performance testing of components/products for residential ventilation — Externally and internally mounted air transfer devices*

BS EN 20140-10 : 1992 *Acoustics — Measurement of sound insulation in buildings and of building elements — Laboratory measurement of room to room airborne sound insulation of small building elements*

MOAT No 1 : 1974 *Directive for the Assessment of Window*

15 Conditions

15.1 This Certificate:

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

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

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

- are maintained at or above the levels which have been assessed and found to be satisfactory by the BBA
- 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 In granting this Certificate, the BBA is not responsible for:

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

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

