

## Rytons Building Products Ltd

Design House  
Kettering Business Park  
Kettering  
Northants NN15 6NL  
Tel: 01536 511874 Fax: 01536 310455  
e-mail: admin@rytons.com  
website: www.vents.co.uk



Agrément Certificate  
**11/4866**  
Product Sheet 2

### RYTONS VENTILATORS

### RYTONS ROOF, RAFTER AND SOFFIT SPACE VENTILATORS

#### PRODUCT SCOPE AND SUMMARY OF CERTIFICATE

This Certificate replaces Certificate 94/3070 and relates to Rytons Roof, Rafter and Soffit Space Ventilators used for providing natural ventilation to insulated roof spaces in pitched, low-pitched, mono-pitched or flat roofs in new and existing properties.

#### 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 towards providing the necessary roof space ventilation (see section 5).

**Durability** — the products are manufactured from durable materials and will have a life comparable to that of other roof components (see section 9).

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

Sean Moriarty  
Head of Approvals — Physics

Greg Cooper  
Chief Executive

Date of First issue: 19 September 2011

Originally certified on 15 March 1995

*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](http://www.bbacerts.co.uk)*

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

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

tel: 01923 665300  
fax: 01923 665301  
e-mail: [mail@bba.star.co.uk](mailto:mail@bba.star.co.uk)  
website: [www.bbacerts.co.uk](http://www.bbacerts.co.uk)

©2011

# Regulations

In the opinion of the BBA, Rytons Roof, Rafter and Soffit Space Ventilators, 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 2010 (England and Wales)

Requirement:	C2(c)	Resistance to moisture
Comment:		The products can contribute to enabling a roof to meet this Requirement. See section 5 of this Certificate.
Requirement:	Regulation 7	Materials and workmanship
Comment:		The products are acceptable. See section 9 and the <i>Installation</i> part of this Certificate.



## The Building (Scotland) Regulations 2004 (as amended)

Regulation:	8(1)(2)	Fitness and durability of materials and workmanship
Comment:		The products satisfy the requirements of this Regulation. See sections 8.1, 8.2 and 9 and the <i>Installation</i> part of this Certificate.
Regulation:	9	Building standards – construction
Standard:	3.15	Condensation
Comment:		The products can contribute to minimising the risk of condensation with reference to clauses 3.15.1 <sup>(1)(2)</sup> , 3.15.2 <sup>(1)(2)</sup> , 3.15.3 <sup>(1)(2)</sup> , 3.15.5 <sup>(1)(2)</sup> , 3.15.6 <sup>(1)(2)</sup> and 3.15.7 <sup>(1)(2)</sup> . See section 5 of this Certificate.
Regulation:	12	Building standards – conversions
Comment:		All comments given for the products under Regulation 9, also apply to this Regulation, with reference to clause 0.12.1 <sup>(1)(2)</sup> and Schedule 6 <sup>(1)(2)</sup> . (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 9 and the <i>Installation</i> part of this Certificate.
Regulation:	B3(2)	Suitability of certain materials
Comment:		The products are acceptable. See sections 8.1 and 8.2 of this Certificate.
Regulation:	C5	Condensation
Comment:		The products can contribute to satisfying this Regulation. See section 5 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 to address their obligations under these Regulations.

# Non-regulatory Information

## NHBC Standards 2011

NHBC accepts the use of the Rytons Roof, Rafter and Soffit Space Ventilators, when installed and used in accordance with this Certificate in relation to *NHBC Standards*, Chapter 7.2 *Pitched roofs*.

# Technical Specification

## 1 Description

1.1 Rytons Roof, Rafter and Soffit Space Ventilators are manufactured from suitable grades of thermoplastic to the nominal dimensions given in Table 1 (see also Figure 1).



TV600



TV600F5D



TV600F



TV6005D



RRV250



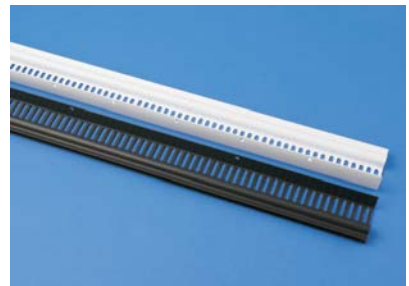
RV600



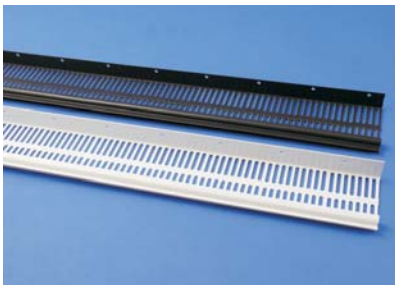
TS610



TS625



CS351



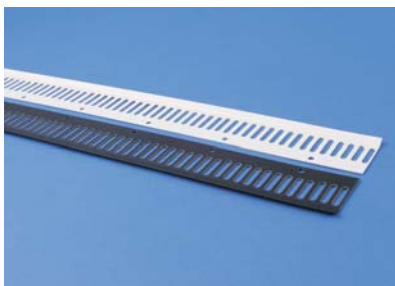
CS702



CSG350



SS240



AS351



PL235



OFV1000



OFV300



FR250



RYTCOMB

Table 1 Product range and nominal dimensions (see Figure 1)

Item/Code		Depth (mm)	Height (mm)	Width (mm)	Colour
<i>Roof Space Ventilators</i>					
TV600	Roof Ventilator	250	45	620	black
TV6005D	Deep Roof Ventilator	500	45	620	black
TV600F <sup>(1)</sup>	Flyscreened Roof Ventilator	250	45	620	black
TV600F5D <sup>(1)</sup>	Deep Flyscreened Roof Ventilator	500	45	620	black
RRV250	Rafter Roll Ventilator	320	50	4 000	black
RV600	Refurbishment Ventilator	225 (excluding flap)	32	280	clear
<i>Rafter Space Ventilators</i>					
TS610	10 mm T-Strip	24	47	610	brown
TS625	25 mm T-Strip	24	64	610	brown
<i>Soffit Space Ventilators</i>					
CS351	ClipStrip <sup>(2)</sup>	42	24	2 440	white, brown
CS702	Low Pitch ClipStrip <sup>(2)</sup>	76	24	2 440	white, brown
CSG350	Grooved Facia ClipStrip <sup>(2)</sup>	44	6	2 440	white
SS240	Ventilated Soffit Strip	44	24	2 440	white, brown
AS351	Angled Soffit Strip	40 (including flexible strip)	n/a	2 440	white, brown
PL235	Push & Lock <sup>(2)</sup> Ventilator	n/a	70 (internal diameter) 83 (external diameter)	70 (internal diameter) 83 (external diameter)	brown, white, black, light oak
<i>Fascia and Abutment Ventilators</i>					
OFV1000	Over Facia Ventilator	44	20	1 000	black
OFV300	Low Pitch Over Facia/Abutment Ventilator	59	45	297	white
FR250	Low Pitch Over Facia/Abutment Ventilator	68	27	897	brown
<i>Bird/Vermin Guard</i>					
RYTCOMB	RytComb	18 (fixing strip)	54	1 000	black

(1) Additional integral insect grille.

(2) ClipStrip and Push & Lock are registered trademarks of Rytons Building Products Ltd.

1.2 Quality control is exercised over raw materials, during production and on the final products.

## 2 Delivery and site handling

2.1 The products are delivered in cardboard boxes bearing labels incorporating details of the contents.

2.2 The products should be stored in clean, dry surroundings out of direct sunlight until ready for use, and protected from mechanical damage.

## Assessment and Technical Investigations

The following is a summary of the assessment and technical investigations carried out on Rytons Roof, Rafter and Soffit Space Ventilators.

## Design Considerations

### 3 Use

Rytons Roof, Rafter and Soffit Space Ventilators used for providing natural ventilation to insulated roof spaces in pitched, low-pitched, mono-pitched or flat roofs in new and existing properties. Rytons Roof Ventilators (TV600, TV6005D, TV600F and TV600F5D) are for use in new roofs with rafters spaced at 600 mm.

## 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

Roof pitches greater than 15° (see Table 2)

5.1 Rytons Refurbishment Ventilator (RV600), Rytons Roof Ventilators (TV), Rytons Deep Roof Ventilator (TV6005D), Rytons Rafter Roll Ventilator (RRV250) when used in conjunction with the Rytons ClipStrip (CS351), Rytons Grooved Facia ClipStrip (CSG350), Rytons Angled Soffit Strip (AS351), Rytons Ventilated Soffit Strip (SS240), Rytons 10 mm T-Strip (TS610), Rytons Push & Lock Ventilator (PL235) or Rytons Over Facia Ventilator (OFV1000), will allow adequate ventilation to insulated loft spaces where both the ceiling and insulation are horizontal.

5.2 Rytons Flyscreened Roof Ventilator (TV600F), Rytons Deep Flyscreened Roof Ventilator (TV600F5D) and Rytons 10 mm T-Strip (TS610) when used in conjunction with Rytons Roof Ventilator (TV600), Rytons Deep Roof Ventilator (TV6005D), Rytons Rafter Roll Ventilator (RRV250) or Rytons Refurbishment Ventilator (RV600), have integral grilles which allow adequate ventilation to insulated roof spaces for roofs with open eaves where the ceiling and insulation are horizontal.

Table 2 Service performance — roof pitches greater than 15°

Item/Code	Effective area <sup>(1)</sup> for 1 m run of eaves (mm <sup>2</sup> )	Equivalent width of continuous slot (mm)
<i>Roof Space Ventilators</i>		
TV600	31 666	31.6
TV6005D	31 666	31.6
TV600F	10 000	10.0
TV600F5D	10 000	10.0
RRV250	25 000	25.0
RV600	≥10 000	10.0
<i>Rafter Space Ventilators</i>		
TS610	11 075	11.0
<i>Soffit Space Ventilators</i>		
CSG350	10 366	10.3
CS351	10 366	10.3
SS240	10 366	10.3
AS351	10 366	10.3
PL235	10 252	10.2
<i>Fascia and Abutment Ventilators</i>		
OFV1000	11 235	11.2
<i>Bird/Vermin Guard</i>		
RYTCOMB	n/a	n/a

(1) Effective area is assumed to be equal to the geometric free area.

5.3 Consideration should be given to the use of high-level ventilation openings to increase the ventilation rate<sup>(1)</sup>. 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 metres.

## Roof pitches 15° or less<sup>(2)</sup>, or where ceiling follows pitch of roof (see Table 3)

5.4 Rytons Roof Ventilators (TV600), Rytons Deep Roof Ventilator (TV6005D), Rytons Rafter Roll Ventilator (RRV250), when used in conjunction with the Rytons Low Pitch ClipStrip (CS702), Rytons 25 mm T-Strip (TS625), Rytons Flat Roof/Abutment Ventilator (FR250), or Rytons Low Pitch Over Facia Ventilator (OFV300) will allow adequate ventilation to:

- (a) insulated loft spaces where both the ceiling and the insulation are horizontal.
- (b) roof voids<sup>(3)</sup> for roofs where the ceiling follows the pitch of the roof. However, it is essential that an unrestricted air space of at least 50 mm is maintained between the underside of the roofdeck and the top of the insulation. Where there is an obstruction to the ventilation, ie rooflights or a change in pitch of the roof, adequate ventilation, in accordance with the requirements of BS 5250 : 2002, clause 8.4, should be provided above and below the obstruction using suitable ventilators:
  - (1) As set out in BS 5250 : 2002, clause 8.4, in particular, clauses 8.4.2.2.3.2, 8.4.2.2.3.3 and 8.4.2.2.3.4.
  - (2) Flat roofs other than a simple rectangular shape or a roof of span in excess of 10 metres may require more ventilation totalling 0.6% of the roof area.
  - (3) As set out in BS 5250 : 2002, clause 8.4.

**Table 3** Roof pitches of 15° or less, or where ceiling follows pitch of roof

Item/Code	Effective area <sup>(1)</sup> for 1 m run of eaves (mm <sup>2</sup> )	Equivalent width of continuous slot (mm)
<i>Roof Space Ventilators</i>		
TV600	31 666	31.6
TV6005D	31 666	31.6
RRV250	25 000	25.0
<i>Rafter Space Ventilators</i>		
TS625	27 590	27.5
<i>Soffit Space Ventilators</i>		
CS702	25 303	25.3
<i>Fascia and Abutment Ventilators</i>		
OFV300	25 252	25.2
FR250	25 000	25.0
<i>Bird/Vermin Guard</i>		
RYTCOMB	n/a	n/a

(1) Effective area is assumed to be equal to the geometric free area.

## Mono-pitched and lean-to roofs (see Table 4)

5.5 Rytons Over Facia Ventilator (OFV1000), Rytons Flat Roof/Abutment Ventilator (FR250) or Rytons Low Pitch Over Facia Ventilator/Abutment Ventilator (OFV300) when used in conjunction with suitable low-level ventilation, according to pitch, will allow adequate ventilation to mono-pitched or lean-to roofs in accordance with BS 5250 : 2002, clause 8.4.

**Table 4** Service performance — mono-pitched and lean-to roofs

Product type	Effective area <sup>(1)</sup> for 1 m run of eaves (mm <sup>2</sup> )	Equivalent width of continuous slot (mm)
<i>Fascia and Abutment Ventilators</i>		
OFV300	25 252	25.2
OFV1000	11 235	11.2
FR250	25 000	25.0

(1) Effective area is assumed to be equal to the geometric free area.

## Effective area

5.6 It should be noted that when two ventilators are used in conjunction, the effective area for a 1 m run of that ventilating system will be equal to the effective area of the smaller of the two units. For example, where types TV600 and CS351 are used together, the effective area for a 1 m run will be 10366 mm<sup>2</sup> (see Table 2).

## 6 Properties in relation to fire

The area of the ventilation units is small in relation to the total area of the roof space and the increase in fire load is small, therefore, the use of these products will be unlikely to affect the overall fire hazard in the roof structure in which they are installed.

## 7 Strength

Provided installation is carried out in accordance with the manufacturer's instructions, the ventilator units will resist the stresses imposed by installation in the roof.

## 8 Maintenance



8.1 The units have no moving parts and are, therefore, considered to be maintenance free.

8.2 Though the risk of blockage is minimal, the slots should be examined occasionally and cleaned if necessary. Blockage (eg by insects and/or debris), should it occur, could impair performance.

8.3 Paint should not be applied.

## 9 Durability



The ventilation units are made of durable materials and will be unaffected by the normal conditions found at eaves, roof/wall abutments, or in a loft space and will have a life comparable to that of other roof components. When preparing soffit and fascia boards or abutment details for maintenance, eg repainting, heat sources, such as gas torches, must not be directed onto or near to the ventilator units.

## Installation

### 10 General

10.1 Rytons Roof Ventilator (TV600), Rytons Deep Roof Ventilator (TV6005D) and Rytons Rafter Roll Ventilator (RRV250) are tacked to the rafters at eaves level prior to laying the roof tile underlay in new roofs with rafter centres spaced at 600 mm. Rytons T-Strips (TS) are spiked through pre-formed holes to rafter ends. For use in new roofs with open eaves and rafter centres spaced at 600 mm. They can be cut easily to suit any intermediate rafter centre. Rytons Flyscreened Roof Ventilator (TV600F) and Rytons Deep Flyscreened Roof Ventilator (TV600F5D) are fixed in a similar manner, except that the insect grille end of the panel should protrude from the brick to ensure maximum possible airflow to the grille. Rytons Roof Ventilators (TV600, TV6005D, TV600F and TV600F5D) are for use in new roofs with rafters spaced at 600 mm.

10.2 Rytons Refurbishment Ventilators (RV600) are installed in new or existing roofs by pushing them into position so that the rib mouldings are in contact with the roof tile underlay. A series of ventilation gaps is thus formed and the ventilators are held in place by friction. The ventilators may be stapled in position if required. One size is suitable for all rafter spacings up to 600 mm.

10.3 The loft insulation, if it is of the quilt type, should be tucked well into the space under the panels and, where possible, around the wall plate to avoid cold bridging. Where loose-fill insulation is used, a short piece of insulation quilt should be fitted as required to avoid spillage. Insulation should not be allowed to block the ventilators.

10.4 Rytons Soffit Space Ventilators are attached to the fascia board and are fixed or clipped to the soffit board. Rytons ClipStrip (CS351), Rytons Low Pitch ClipStrip (CS702) and Rytons Ventilated Soffit Strip (SS240) are fixed with round-headed screws to the fascia board through pre-formed holes in the back upstand of the ventilator. Rytons Grooved Facia ClipStrip (CSG350) locates into a routed groove in the fascia board. The soffit board (up to 9 mm thickness) is then located in the clip, or lip, of the ventilator. The soffit board is then secured to a batten fixed to the brickwork. For soffit boards up to 400 mm deep no other fixing should be required. Rytons Angled Soffit Strip (AS351) is installed in a similar manner but is pinned through the pre-formed holes to the underside of the soffit board.

10.5 Rytons Push & Lock Ventilator (PL235) is installed by push-fitting into a 70 mm diameter hole cut in the soffit board (holes are positioned at 230 mm centres) of any thickness.

10.6 Rytons Over Facia Ventilator (OFV1000) and Rytons Low Pitch Over Facia Ventilator (OFV300) are tacked to the top of the fascia board through pre-formed slots in the ventilator and overlaid with roof tile underlay and tiles.

10.7 Rytons Abutment Ventilator (OFV300) is tacked through pre-formed slots to a timber batten secured to the roof timbers maintaining a gap of at least 25 mm with the abutting wall. A timber fillet may be placed on top of the ventilator before dressing with lead.

10.8 Rytons Flat Roof/Abutment Ventilator (FR250) is installed as described in section 10.6 or section 10.7 depending on its intended use.

10.9 Rytons RytComb (RYTCOMB) is pinned to top of the fascia board through the pre-formed slots in the fixing strip.

## Technical Investigations

### 11 Tests

Tests were carried out to determine:

- ash content
- density
- Vicat softening point
- effective area
- minimum geometric area.

## 12 Investigations

An assessment was made of:

- the data on which the previous Certificate was based. This included an assessment of the practicability of installation and reports of visits to sites to assess performance in use. The conclusions drawn remain valid
- the fabrication process and assembly procedure, including the methods adopted for factory production control.

## Bibliography

BS 5250 : 2002 *Code of practice for control of condensation in buildings*

## Conditions of Certification

### 13 Conditions

13.1 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.

13.2 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.

13.3 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.

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

13.5 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
- individual 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.

13.6 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.