

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 4

RYTONS VENTILATORS

RYTONS VENTILATORS FOR COMBUSTION APPLIANCES

PRODUCT SCOPE AND SUMMARY OF CERTIFICATE

This Certificate relates to Rytons Ventilators for Combustion Appliances used in external walls for the provision of combustion and cooling air for appliances which are not room-sealed.

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 for combustion appliances — the products can contribute to supplying combustion and cooling air for combustion appliances (see section 5).

Sound reduction — acoustic ventilators achieve a reduction in airborne sound transmission (see section 6).

Weathertightness — the products have adequate resistance to water ingress (see section 7).

Durability — the products are made from durable materials and will have a life comparable to that of the building in which they are installed (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

Handwritten signature of Sean Moriarty in black ink.

Sean Moriarty

Head of Approvals — Physics

Handwritten signature of Greg Cooper in black ink.

Greg Cooper

Chief Executive

Date of First issue: 19 September 2011

Originally certified on 21 June 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

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
website: www.bbacerts.co.uk

©2011

Regulations

In the opinion of the BBA, Rytons Ventilators for Combustion Appliances, 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(b)	Resistance to moisture
Comment:		The products have adequate resistance to water ingress. See section 7 of this Certificate.
Requirement:	J1	Air supply
Comment:		The products can contribute to meeting this Requirement. See section 5 of this Certificate.
Requirement:	Regulation 7	Materials and workmanship
Comment:		The products are acceptable. See section 10 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 9.1, 9.2 and 10 and the <i>Installation</i> part of this Certificate.
Regulation:	9	Building standards – construction
Standard:	3.10	Precipitation
Comment:		The products have adequate resistance to water ingress, with reference to clause 3.10.1 ⁽¹⁾⁽²⁾ . See section 7 of this Certificate.
Standard:	3.21	Combustion appliances – air for combustion
Standard:	3.22	Combustion appliances – air for cooling
Comment:		The products can contribute to satisfying these Standards, with reference to clauses 3.21.1 ⁽¹⁾⁽²⁾ to 3.21.4 ⁽¹⁾⁽²⁾ and 3.22.1 ⁽¹⁾⁽²⁾ to 3.22.3 ⁽¹⁾⁽²⁾ . 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 ⁽¹⁾⁽²⁾ and Schedule 6 ⁽¹⁾⁽²⁾ . (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:	B3(2)	Suitability of certain materials
Comment:		The products are acceptable. See sections 9.1 and 9.2 of this Certificate.
Regulation:	C4(b)	Resistance to ground moisture and weather
Comment:		The products have adequate resistance to water ingress. See section 7 of this Certificate.
Regulation:	L2(1)(a)	Air supply
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

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

See section: 2 *Delivery and site handling* (2.1) of this Certificate.

Non-regulatory Information

NHBC Standards 2011

The use of the Rytons Ventilators for Combustion Appliances, in relation to this Certificate, is not subject to the requirements of these Standards.

Technical Specification

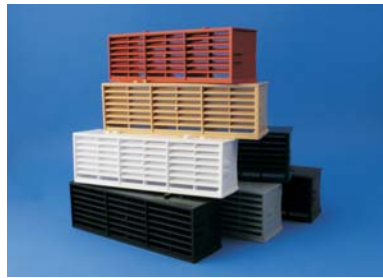
1 Description

1.1 Rytons Ventilators for Combustion Appliances (see Figure 1) are manufactured from suitable grades of thermoplastic. Rytons Floor Ventilator is manufactured in brass. The nominal dimensions and colours are given in Tables 1 and 2.

Figure 1 Product details



ABC3/ABC6/ABC9/ABC8



MFAB



MFAB96



LVR75



LV47



LV103



LV88/LV177/LV265



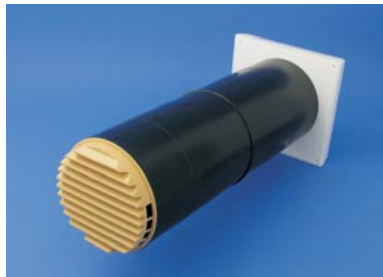
CV60FBG (without flyscreen)



LF80WH/LF147WH



FV10BRAS



ACH75/AAH5



AC10/AC7/AAC5



AC9/AC11/AAC625/AAC635



TALSET/TCL18



TAL9SET/TCL20



TCL8/TAL4SET

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

Item/code	Depth (mm)	Height (mm)	Length (mm)	Colour
<i>External components</i>				
Rytons Cowl '9 x 3' (ABC3)	44	96	255	buff/sand, terracotta
Rytons Cowl '9 x 6' (ABC6)	74	154	255	buff/sand, terracotta, white
Rytons Cowl '9 x 9' (ABC9)	103	235	274	white, buff/sand, terracotta
Rytons AirCore ⁽¹⁾ Cowl '8 x 8½' (ABC8)	93	210	217	white, buff/sand, terracotta
Rytons Multifix ⁽¹⁾ Air Brick (MFAB)	58	66	215	grey, black, white, terracotta, blue/black, brown, buff/sand
Rytons '9 x 6' Multifix Air Brick (MFAB96)	59	134	215	buff/sand, terracotta
<i>External/internal grilles</i>				
Rytons Round Louvre Ventilator (LVR75)	43	124	124	white, buff/sand, terracotta
Rytons Louvre Ventilator '6 x 3' (LV47)	11	94	155	white
Rytons Louvre Ventilator '6 x 6' (LV103)	20	160	166	white, buff/sand, terracotta, black, brown
Rytons Louvre Ventilator '9 x 3' (LV88)	12	95	271	white, terracotta, brown
Rytons Louvre Ventilator '9 x 6' (LV177)	12	171	271	white, brown
Rytons Louvre Ventilator '9 x 9' (LV265)	12	247	271	white, brown
Rytons RytAround ⁽¹⁾ Ventilator (without flyscreen) (CV60FBG)	13.5	156 (overall external diameter)	156 (overall external diameter)	white
Rytons Flush Fitting Louvre Ventilator '9 x 3' (LF80WH)	2	97	270	white
Rytons Flush Fitting Louvre Ventilator '9 x 6' (LF147WH)	2	166	264	white
Rytons Floor Ventilator (FV10BRAS)	125	95	267	polished brass louvre
<i>Tubes</i>				
Rytons 125 mm AirCore Tube (AC10TUBE)	358	External tube 127 diameter	External tube 127 diameter	black
Rytons 125 mm Baffled AirCore Tube (AC7TUBE)	358	External tube 127 diameter	External tube 127 diameter	black
Rytons 150 mm AirCore Tube (AC11TUBE)	358	External tube 151 diameter	External tube 151 diameter	black
Rytons 150 mm Baffled AirCore Tube (AC9TUBE)	358	External tube 151 diameter	External tube 151 diameter	black

(1) Rytons AirCore, Multifix and RytAround are registered trademarks of Rytons Building Products Ltd.

Table 2 Product range and nominal dimensions — Assemblies (see Figure 1)

Item/code	Depth (mm)	Height (mm)	Length (mm)	Colour
Rytons 125 mm Baffled High Rise AirCore (ACH75)	358	External tube 127 diameter Internal grille 160	External tube 127 diameter Internal grille 166	buff/sand, terracotta, white for external louvre ⁽¹⁾
Rytons 125 mm AirCore (AC10)	358	External tube 127 diameter Grilles 160	External tube 127 diameter Grilles 166	buff/sand, terracotta, white for external louvre ⁽¹⁾
Rytons 125 mm Baffled AirCore (AC7)	358	External tube 127 diameter Grilles 160	External tube 127 diameter Grilles 166	buff/sand, terracotta, white for external louvre ⁽¹⁾
Rytons 125 mm Acoustic AirCore (AAC5)	358	External tube 127 diameter Grilles 160	External tube 127 diameter Grilles 166	buff/sand, terracotta, white for external louvre ⁽¹⁾
Rytons 125 mm Acoustic High Rise AirCore (AAH5)	358	External tube 127 diameter Internal grille 160	External tube 127 diameter Internal grille 166	buff/sand, terracotta, white for external louvre ⁽¹⁾
Rytons 150 mm Baffled AirCore (AC9)	358	External tube 151 diameter Grilles 173	External tube 151 diameter Grilles 177	buff/sand, terracotta, white for external louvre ⁽¹⁾
Rytons 150 mm AirCore (AC11)	358	External tube 151 diameter Grilles 173	External tube 151 diameter Grilles 177	buff/sand, terracotta, white for external louvre ⁽¹⁾
Rytons 150 mm Acoustic AirCore (AAC625) – 150 mm diameter + 25 mm foam	358	External tube 151 diameter Grilles 173	External tube 151 diameter Grilles 177	buff/sand, terracotta, white for external louvre ⁽¹⁾
Rytons 150 mm Acoustic AirCore (AAC635) – 150 mm diameter + 35 mm foam	358	External tube 151 diameter Grilles 173	External tube 151 diameter Grilles 177	buff/sand, terracotta, white for external louvre ⁽¹⁾
Rytons '9 x 6' Acoustic AirLiner Set (TALSET) [Set contains Multifix Air Brick (MFAB96), '9 x 6' Acoustic AirLiner(1) (TAL8000) and Flush Fitting Louvre Ventilator '9 x 6' (LF147VWH)]	250 ⁽³⁾ –404	140 ⁽⁴⁾	220	grey, black, buff/sand, terracotta, white, brown, blue/black for external air brick ⁽¹⁾
Rytons '9 x 9' Ventilation Set (TCL20) [Set contains Multifix Air Bricks (MFAB), '9 x 9' AirLiner (TCL20000) and Louvre Ventilator '9 x 9' (LV265)]	250 ⁽³⁾ –404	207 ⁽⁴⁾	220	grey, black, buff/sand, terracotta, white, brown, blue/black for external air brick ⁽¹⁾
Rytons '9 x 9' Acoustic AirLiner Set (TAL9SET) [Set contains Multifix Air Bricks (MFAB), '9 x 9' Acoustic AirLiner (TAL9900) and Louvre Ventilator '9 x 9' (LV265)]	250 ⁽³⁾ –404	207 ⁽⁴⁾	220	grey, black, buff/sand, terracotta, white, brown, blue/black for external air brick ⁽¹⁾
Rytons '9 x 3' Ventilation Set (TCL8) [Set contains Multifix Air Brick (MFAB), '9 x 3' AirLiner (TCL8000) and Flush Fitting Louvre Ventilator (LF80VWH)]	250 ⁽³⁾ –368	71 ⁽⁴⁾	220	grey, black, buff/sand, terracotta, white, brown, blue/black for external air brick ⁽¹⁾
Rytons '9 x 3' Acoustic AirLiner Set (TAL4SET) [Set contains Multifix Air Brick (MFAB), '9 x 3' Acoustic AirLiner (TAL4000) and Flush Fitting Louvre Ventilator (LF80VWH)]	250 ⁽³⁾ –368	71 ⁽⁴⁾	220	grey, black, buff/sand, terracotta, white, brown, blue/black for external air brick ⁽¹⁾
Rytons '9 x 6' Ventilation Set (TCL18) [Set contains Multifix Air Bricks (MFAB), '9 x 6' AirLiner (TCL18000) and Flush Fitting Louvre Ventilator (LF147VWH)]	250 ⁽³⁾ –404	140 ⁽⁴⁾	220	grey, black, buff/sand, terracotta, white, brown, blue/black for external air brick ⁽¹⁾

(1) White for internal grille.

(2) Rytons AirLiner is a registered trademark of Rytons Building Products Ltd.

(3) Including MFAB.

(4) Excluding flange.

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 detailing the contents. The weight of the box can be obtained from the manufacturer's website.

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 Ventilators for Combustion Appliances.

Design Considerations

3 Use

3.1 The products provide combustion and cooling air for combustion appliances which are not room-sealed (see section 5).

3.2 Ventilators should be sited where they are unlikely to be blocked and so that the building occupants are not provoked into sealing them against draughts or noise.

3.3 The ventilators should also be sited to minimise the risk of wind-driven rain or snow.

3.4 Rytons Acoustic AirCores and Airliners achieve a reduction in airborne sound transmission when compared to the non-acoustic cores and liners.

3.5 All Rytons AirCores can be installed in brickwork or blockwork constructions after a 127 mm or 151 mm diameter (depending on the size) hole has been drilled.

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 for combustion appliances



When ventilating a room containing a combustion appliance care should be taken to ensure correct siting and sufficient permanent openings in the room, under all circumstances, to permit the safe and efficient operation of the appliance and of the permanent ventilators (see also section 3.2 of this Certificate):

England and Wales — Approved Document J, clauses 1.10 to 1.17, 2.2, 3.6 to 3.16, 4.3 and Tables 3 or 4 of this Certificate

Scotland — Mandatory Standard 3.21.1⁽¹⁾⁽²⁾ to 3.21.4⁽¹⁾⁽²⁾ and 3.22.1⁽¹⁾⁽²⁾ to 3.22.3⁽¹⁾⁽²⁾ and Table 4 of this Certificate

(1) Technical Handbook (Domestic).

(2) Technical Handbook (Non-Domestic).

Northern Ireland — Technical Booklet L, clauses 12 to 15 and Table 4 of this Certificate.

Table 3 Equivalent area of whole ventilator assemblies

Vent	Equivalent area (mm ²)
Rytons 150 mm Baffled AirCore (AC9)	9 140 ⁽¹⁾
Rytons 150 mm AirCore (AC11)	11 500 ⁽¹⁾
Rytons 150 mm Acoustic AirCore (AAC625)	7 906 ⁽¹⁾
Rytons 150 mm Acoustic AirCore (AAC635)	5 412 ⁽¹⁾
Rytons 125 mm Baffled High Rise AirCore (ACH75)	5 560 ⁽²⁾
Rytons 125 mm AirCore (AC10)	10 040 ⁽²⁾
Rytons 125 mm Baffled AirCore (AC7)	7 370 ⁽²⁾
Rytons 125 mm Acoustic AirCore (AAC5)	3 970 ⁽²⁾
Rytons 125 mm Acoustic High Rise AirCore (AAH5)	3 880 ⁽²⁾
Rytons '9 x 6' Acoustic AirLiner Set (TALSET) [Set contains Multifix Air Brick (MFAB96), '9 x 6' Acoustic AirLiner (TAL8000) and Flush Fitting Louvre Ventilator '9 x 6' (LF147VWH)]	3 965 ⁽¹⁾
Rytons '9 x 9' Ventilation Set (TCL20) [Set contains Multifix Air Bricks (MFAB) '9 x 9' AirLiner (TCL20000) and Louvre Ventilator '9 x 9' (LV265)]	16 580 ⁽¹⁾
Rytons '9 x 9' Acoustic AirLiner Set (TAL9SET) [Set contains Multifix Air Bricks (MFAB) '9 x 9' Acoustic AirLiner (TAL9900) and Louvre Ventilator '9 x 9' (LV265)]	7 171 ⁽¹⁾
Rytons '9 x 3' Ventilation Set (TCL8) [Set contains Multifix Air Brick (MFAB), '9 x 3' AirLiner (TCL8000) and Flush Fitting Louvre Ventilator (LF80VWH)]	5 350 ⁽²⁾
Rytons '9 x 3' Acoustic AirLiner Set (TAL4SET) [Set contains Multifix Air Brick (MFAB), '9 x 3' Acoustic AirLiner (TAL4000) and Flush Fitting Louvre Ventilator (LF80VWH)]	2 590 ⁽²⁾
Rytons '9 x 6' Ventilation Set (TCL18) [Set contains Multifix Air Bricks (MFAB), '9 x 6' AirLiner (TCL18000) and Flush Fitting Louvre Ventilator (LF147VWH)]	10 700 ⁽²⁾

(1) According to BS EN 13141-1 : 2004 (at 15 Pa).

(2) According to A dynamic Test procedure for characterising ventilator free area, BG Technology publication (GRTC/R2941), April 1999 (at 15 Pa).

Table 4 Free (minimum open) areas⁽¹⁾ of ventilator components

Vent	Free area (mm ²)
<i>External components</i>	
Rytons Cowl '9 x 3' (ABC3)	8700
Rytons Cowl '9 x 6' (ABC6)	16000
Rytons Cowl '9 x 9' (ABC9)	23900
Rytons AirCore Cowl '8 x 8½' (ABC8)	1600
Rytons Multifix Air Brick (MFAB)	7750
Rytons 9 x 6 Multifix Air Brick (MFAB96)	15190
<i>External/Internal grilles</i>	
Rytons Round Louvre Ventilator (LVR75)	8000
Rytons Louvre Ventilator '6 x 3' (LV47)	4750
Rytons Louvre Ventilator '6 x 6' (LV103)	10360
Rytons Louvre Ventilator '9 x 3' (LV88)	8800
Rytons Louvre Ventilator '9 x 6' (LV177)	17760
Rytons Louvre Ventilator '9 x 9' (LV265)	26500
Rytons RytAround (150 mm) without flyscreen)	8900 ⁽²⁾
Rytons RytAround (125 mm) without flyscreen)	7620 ⁽²⁾
Rytons RytAround (100 mm) without flyscreen)	4870 ⁽²⁾
Rytons Flush Fitting Louvre Ventilator '9 x 3' (LF80WH)	8000
Rytons Flush Fitting Louvre Ventilator '9 x 6' (LF147WH)	14700
Rytons Floor Ventilator (FV10BRAS)	11000
<i>Tubes</i>	
Rytons 125 mm AirCore Tube (AC10TUBE)	11600
Rytons 125 mm Baffled AirCore Tube (AC7TUBE)	10300
Rytons 150 mm AirCore Tube (AC11TUBE)	16500
Rytons 150 mm Baffled AirCore Tube (AC9TUBE)	13100

(1) Where two or more components are to be used to provide an assembly, the assembly should be taken to have a free area equal to that of the component with the smallest free area in the assembly.

(2) Maximum, dependant on type/thickness of tube.

6 Sound reduction

6.1 Rytons Acoustic AirCores and Airliners when tested to BS EN 20140-10 : 1992 and rated to BS EN ISO 717-1 : 1997 achieved the values shown in Table 5.

Table 5 Airborne Sound Insulation

Vent	$D_{n,e,w} (C; C_{tr})$ (dB)
Rytons 150 mm Acoustic AirCore (AAC625) – 150 mm diameter + 25 mm foam (RD6LV, 150 mm Acoustic AirCore Tube with 25 mm foam, RD6LV)	36 (0;-2)
Rytons 150 mm Acoustic AirCore (AAC635) – 150 mm diameter + 35 mm foam (RD6LV, 150 mm Acoustic AirCore Tube with 35 mm foam, RD6LV)	41 (-1;-3)
Rytons 125 mm Acoustic High Rise AirCore (AAH5) – 125 mm diameter + 25 mm foam (LVR75, 125 mm Acoustic AirCore Tube with 25 mm foam, LV110, APBACK ⁽¹⁾)	41 (0;-1)
Rytons 125 mm Acoustic AirCore (AAC5) – 125 mm diameter + 25 mm foam (LV110 + APBACK(1), 125 mm Acoustic AirCore Tube with 25 mm foam, LV110 + APBACK ⁽¹⁾)	39 (-1;-3)
Rytons 9 x 6 Acoustic Airliner Set (TALSET) [Set contains Multifix Air Brick (MFAB96), '9 x 6' Acoustic Airliner (TAL8000) and Flush Fitting Louvre Ventilator '9 x 6' (LF147WH)]	39 (0;-2)
Rytons 9 x 9 Acoustic Airliner Set (TAL9SET) [Set contains Multifix Air Bricks (MFAB), '9 x 9' Acoustic Airliner (TAL9900) and Louvre Ventilator '9 x 9' (LV265)]	38 (-1;-3)
Rytons '9 x 3' Acoustic Airliner Set (TAL4SET) [Set contains Multifix Air Brick (MFAB), '9 x 3' Acoustic Airliner (TAL4000) and Flush Fitting Louvre Ventilator (LF80WH)]	38 (0;-1)

(1) Rytons '6 x 6' Louvre Backplate with 122 mm diameter spigot.

7 Weathertightness



The products have adequate resistance to water ingress.

8 Properties in relation to fire

8.1 Ventilation louvres mounted on the inside surface of an external wall are of limited area and need not be taken into account when considering the classification of the lining's resistance to fire spread.

8.2 The use of wall-mounted louvres in an otherwise protected area is unrestricted provided the minimum distances from other unprotected areas are maintained as given in:

England and Wales — Approved Document B, Diagram 20, Volume 1 — *Dwellinghouses* and Diagram 44, Volume 2 — *Buildings other than Dwellinghouses*

Northern Ireland — Technical Booklet E, Diagram 4.4.

8.3 In Scotland, ventilators mounted on an external wall that is on a boundary or within 500 mm of a boundary must not project beyond the boundary.

8.4 Consideration should be given to firestopping around ducts passing through cavities unless adequate measures are taken to ensure that fire, or the hot gases from a fire, cannot penetrate the cavity through the duct.

9 Maintenance



9.1 The products should not require any maintenance in normal use. There is little risk of blockage but, should the ducting become blocked, access may be gained by the removal of the internal grille.

9.2 The design of the external louvre limits the risk of blockage, but should this occur the performance of the products would be impaired. The louvre should be inspected occasionally and cleaned if necessary; if damaged it should be replaced.

9.3 Paint should not be applied.

10 Durability



The components are made of durable materials and, should have a life equal to that of the building in which they are installed.

Installation

11 General

11.1 Rytons Airliners, Acoustic Airliners, Air Bricks and Louvre Ventilators do not require special fixings. They are incorporated in the brickwork or blockwork during normal course of laying.

11.2 If necessary, the ventilators can be cut easily with a fine-tooth saw.

Note: Cowls always fitted separately.

11.3 The front of the Air Bricks should be aligned with the brickwork face.

11.4 Rytons AirCores are incorporated in the brickwork or blockwork by a 127 mm (if the 125 mm tube is used) or 151 mm (if the 150 mm tube is used) hole being drilled and the tube cut to length. Rytons AirCore and Acoustic AirCore are inserted into the hole and the internal and external louvres push fitted to finish. The Rytons High Rise AirCore and Acoustic High Rise AirCore are inserted into the hole as one unit and the internal louvre push fitted to finish.

11.5 The Rytons Floor Ventilator is placed into the sleeve provided and inserted into the precut hole in the floor. The grille is secured with the screws provided.

12 Tests

Tests were carried out to determine:

- ash content
- density
- stress relief
- Vicat softening point
- impact
- effect of UV and heat ageing.

13 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
- test reports relating to acoustic data
- test reports relating to the equivalent areas
- the durability of the ventilators.

Bibliography

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 airborne sound insulation of small building elements*

BS EN ISO 717-1 : 1997 *Acoustics — Rating of sound insulation in buildings and of building elements — Airborne sound insulation*

14 Conditions

14.1 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.

14.2 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.

14.3 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.

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

14.5 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.

14.6 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.

