

## Window Vent colour range

<b>White</b> Order code - W RAL - 9003	<b>Brilliant White</b> Order code - BW	<b>Brown</b> Order code - B
<b>Tan</b> Order code - T	<b>Black</b> Order code - BK RAL - 9005	<b>Light Ivory</b> Order code - C RAL - 1015
<b>Silver Grey</b> Order code - G RAL - 7001	<b>White inner Cream outer</b> Order code - WICO RAL - 9003/9001	<b>White inner Brown outer</b> Order code - WIBO
<b>White inner Light Ivory outer</b> Order code - WICRO RAL - 9003/1015	<b>White inner Black outer</b> Order code - WIBKO RAL - 9003/9005	<b>White inner Tan outer</b> Order code - WITO
<b>White inner Silver Grey outer</b> Order code - WIGO RAL - 9003/7001	<b>White inner Anthracite Grey outer</b> Order code - WIAGO RAL - 9003/7016	<b>White inner Black Brown outer</b> Order code - WIBBO RAL - 9003/8022
<b>White inner Slate Grey outer</b> Order code - WISGO RAL - 9003/7015	<b>Brilliant white inner Brown outer</b> Order code - BWIBO	<b>Brilliant white inner Tan outer</b> Order code - BWITO
<b>Anthracite Grey</b> Order code - AG RAL - 7016	<b>White inner Chartwell outer</b> Order code - WICGO	<b>White inner Irish Oak outer</b> Order code - WIIOO

NB: Images used are for illustration purposes only

**Example product code matrix:** 3000S + B + BW = Bottom operating single slot brilliant white S Vent

# Regulation Requirements

## Regulations for refurbishment & replacement windows England and Wales

### ADF: 2010 Section 7 Work on existing buildings

**Refurbishment and replacement windows**  
Approved Document F provides requirements for compliance for ventilation in replacement windows as follows;  
The installation of trickle ventilators in replacement windows is deemed as best practice to ensure good airflow and indoor air quality in existing dwell.  
Trickle ventilators must be installed in replacement windows where the existing windows already have them. The rate or number of window ventilators installed must be no less than the previous provision.

In all cases of work, ventilation must have been improved after completion. Original windows with vents should be replaced with the following;

- 5000mm<sup>2</sup> equivalent area in habitable rooms
- 2500mm<sup>2</sup> equivalent area in non-habitable rooms
- Section 7 of ADF 2010 details the requirements of background ventilation for additions of habitable, non-habitable and conservatory accommodation (log onto [www.greenwood.co.uk](http://www.greenwood.co.uk) for full details)

## Ventilation provision for new dwellings

Ventilation rates are set out in the document under four standard methodologies:

<b>System 1</b>	Background Ventilators and Intermittent Extract Fans
<b>System 2</b>	Passive Stack Ventilation
<b>System 3</b>	Continuous Mechanical Extract Ventilation Central Mechanical Extract Ventilation
<b>System 4</b>	Continuous Supply and Extract Ventilation with Heat Recovery

Each of the methodologies has a specific calculation to determine the required air flow rates based on dwelling size, number of bedrooms and occupancy levels. The ventilation provisions recommended for new dwellings have been specified for two standard designs of air permeability. The default option assumes zero air permeability and, consequently, zero infiltration. This means the building is therefore entirely dependent on purpose provided ventilation.

## Background ventilation

**Table 5.2a**  
Total equivalent ventilator area<sup>(a)</sup> (mm<sup>2</sup>) for a dwelling with any design air permeability

Total floor area (m <sup>2</sup> )	Number of bedrooms <sup>(b)</sup>				
	1	2	3	4	5
< 50	35000	40000	50000	60000	65000
51-60	35000	40000	50000	60000	65000
61-70	45000	45000	50000	60000	65000
71-80	50000	50000	50000	60000	65000
81-90	55000	60000	60000	60000	65000
91-100	65000	65000	65000	65000	65000
> 100	Add 7000mm <sup>2</sup> for every additional 10m <sup>2</sup> floor area				

**Alternative guidance on total equivalent area<sup>(a)</sup> (mm<sup>2</sup>) for a dwelling with a designed air permeability leakier than (>) 5m<sup>3</sup>/(h.m<sup>2</sup>) at 50 Pa**

Total floor area (m <sup>2</sup> )	Number of bedrooms <sup>(b)</sup>				
	1	2	3	4	5
< 50	25000	35000	45000	45000	55000
51-60	25000	30000	40000	45000	55000
61-70	30000	30000	30000	45000	55000
71-80	35000	35000	35000	45000	55000
81-90	40000	40000	40000	45000	55000
91-100	45000	45000	45000	45000	55000
> 100	Add 5000mm <sup>2</sup> for every additional 10m <sup>2</sup> floor area				

**Notes:**  
a The equivalent area of a background ventilator should be determined at 1 Pa pressure difference.  
b This is based on two occupants in the main bedroom and a single occupant in all other bedrooms. For a greater level of occupancy, assume a greater number of bedrooms (i.e. assume an extra bedroom per additional person). For more than five bedrooms, add an additional 1000mm<sup>2</sup> per bedroom.

## Airflow rates

**Table 5.1a**  
Extract ventilation rates  
Please refer to ADF 2010 for the full calculation requirements for System 1-4

Room	Intermittent extract Minimum rate	Continuous extract	
		Minimum high rate	Minimum low rate
Kitchen	30 l/s adjacent to hob or 60 l/s elsewhere	13 l/s	Total extract rate should be at least the whole dwelling ventilation rate given in Table 5.1b
Utility room	30 l/s	8 l/s	
Bathroom	15 l/s	8 l/s	
WC	6 l/s	6 l/s	

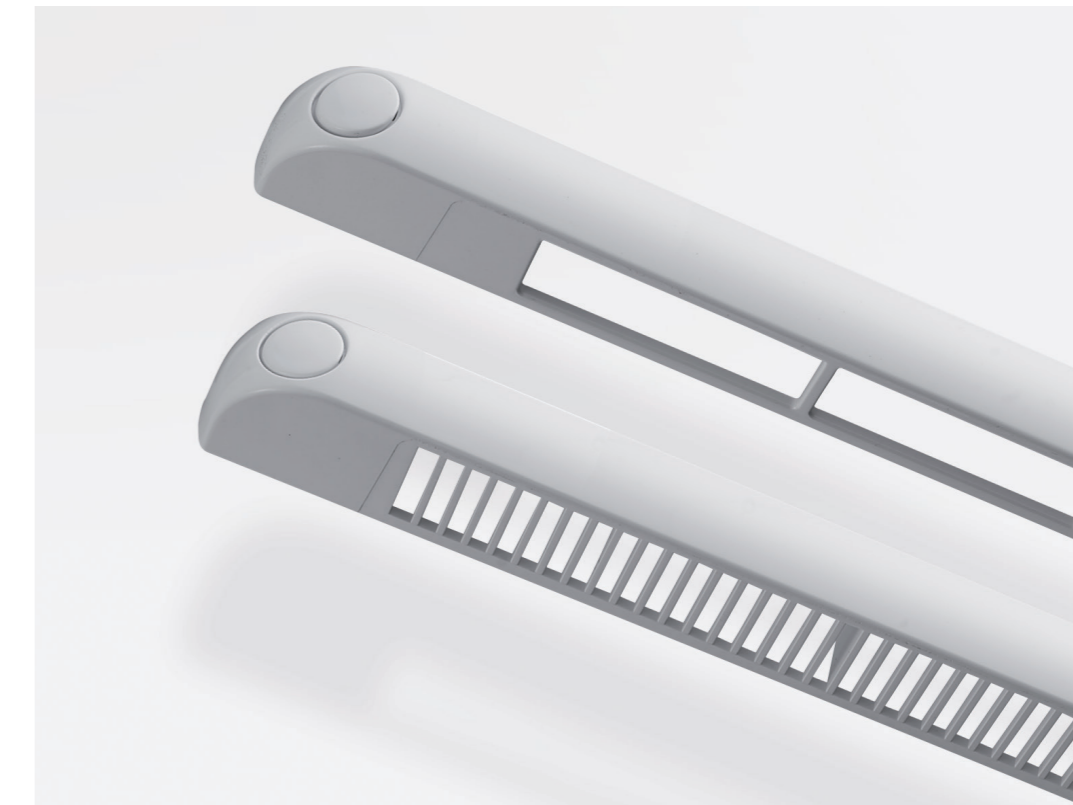
**Table 5.1b**  
Whole dwelling ventilation rates

Whole dwelling ventilation rate (l/s)	Number of bedrooms in dwelling				
	1	2	3	4	5
	13	17	21	25	29

**Notes:**  
a In addition, the minimum ventilation rate should be not less than 0.3 l/s per m<sup>2</sup> of internal floor area (this includes all floors, e.g. for a two-storey building add the ground and first floor areas).  
b This is based on two occupants in the main bedroom and a single occupant in all other bedrooms. This should be used as the default value. If a greater level of occupancy is expected add 4 l/s per occupant.

# Window Vents

Passive ventilation



2 year warranty

Independently tested and accredited

Large range of options

Acoustic ventilation solutions

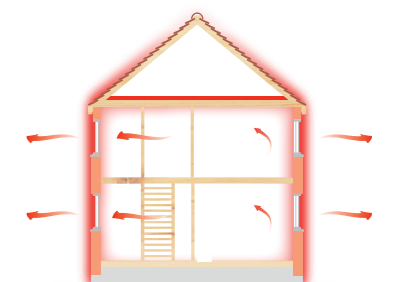


Performance is crucial, not only for Building Regulation compliance, but also the health and wellbeing of occupants. With people spending up to 70% of their time indoors, it is vital that buildings are ventilated correctly.

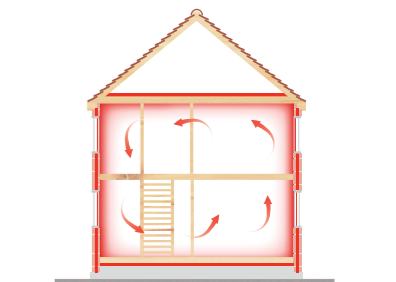
We want to ensure you have 100% confidence in the performance of our products and that's why they are all tested to the latest British and European Standards by independent, third party accredited test houses. Full copies of our test information is available on request.

## For Window Vents

- BS EN 13141-1: 2004
- BS EN 1026: 2000
- BS EN 1027: 2000
- BS EN ISO 717-1: 1997
- > Ventilation for Buildings
- > Air Permeability
- > Watertightness
- > Airborne Sound Insulation (dB)



Design: > 5ach at 50 Pa



Design: < 5ach at 50 Pa

Building Regulations for Window Vent Requirements in new build vary depending on air tightness levels

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# Window Vent Product Range

Example product code matrix: **3000S + F + WICO** = Front operating single slot S Vent with white inner and cream outer

## Product selector

Slotvents	Control Options	Features and benefits	Colours*	Used on over-frame	Cross section	Model codes	Slot lengths	Slot height	Equivalent area (mm <sup>2</sup> )	Dn,e,w (dB) Acoustic performance (max for range)	Configurations and additional info		
<b>F Vent</b>	<b>B</b>	<ul style="list-style-type: none"> <li>Slimline, unobtrusive finish on profile when installed</li> <li>Up to 2634mm<sup>2</sup> equivalent area</li> <li>Screw fix and clip fit installation options</li> <li>10 or 12mm rout options</li> </ul>	W, BW, B, T, WIBO, WITO			<b>1250FB</b>	192	10	1342	37	<b>1250FB &amp; 2500FB</b> Complete unit supplied with bottom operation		
						<b>2500FB</b>	163.5 10 163.5	10	2583	33			
						<b>1250FBC</b>	192	10	1342	37			
						<b>2500FBC</b>	163.5 10 163.5	10	2583	33			
<b>S Vent</b>	<b>F, B, PC</b>	<ul style="list-style-type: none"> <li>Up to 4200mm<sup>2</sup> equivalent area</li> <li>Selection of control options</li> <li>Upward and downward air deflection options</li> <li>Widely specified within the social sector</li> <li>Suitable for installation with sleeves that help improve window integrity</li> </ul>	W, BW, B, T, C, G, BK, WIBO, WITO, WICO, WICRO, WIAGO, WIGO, WIBBO, WIBKO, WISGO, BWITO, BWIBO, AG			<b>3000S</b>	243	12.5	1800	35	An optional sleeve is available for bridging the window frame across the rout. Its use encloses the passage of air between the inner and outer frame sections improving the overall integrity of the window.		
						<b>4000S</b>	163 15.5 163	12.5	2700	33			
						<b>6000S</b>	243 15.5 243	12.5	3400	32			
<b>L Vent</b>	<b>B</b>	<ul style="list-style-type: none"> <li>Slimline design for low profile window frames</li> <li>Up to 3200mm<sup>2</sup> equivalent area</li> <li>Bottom operation</li> <li>Small 10mm rout</li> </ul>	W, BW, B, T, BK, WIBO, WITO, WIBKO			<b>2000L</b>	203	10	1600	37			
						<b>4000L</b>	203 20 203	10	3200	34			
<b>D Vent</b>	<b>F</b>	<ul style="list-style-type: none"> <li>Up to 3300mm<sup>2</sup> equivalent area for through frame applications</li> <li>External louvred grille</li> <li>Upward air deflection to prevent draughts</li> <li>Discreet design provides a pleasing installed finish</li> </ul>	W			<b>2000D</b>	165	13	-	34	<b>2000D &amp; 4000D</b> Internal unit only		
						<b>4000D</b>	165 30 165	13	-	33			
						<b>2000DF</b>	165	13/16	1400/1700	34			
						<b>4000DF</b>	165 30 165	13/16	2800/3300	33			
<b>HD</b>	<b>F</b>	<ul style="list-style-type: none"> <li>Up to 6800mm<sup>2</sup> equivalent area</li> <li>External louvred grille</li> <li>Upward air deflection to prevent draughts</li> <li>Designed for use on wide window profiles</li> </ul>	W, BW, B	✓		<b>4000HD</b>	235	18	-	33	<b>4000HD &amp; 8000HD</b> Internal unit only		
						<b>8000HD</b>	235 20 235	18	-	31			
						<b>4000HDF</b>	235	18	3200	33			
						<b>8000HDF</b>	235 20 235	18	6400	31			
<b>2500/5000 EA</b>	<b>F</b>	<ul style="list-style-type: none"> <li>Smallest 5000mm<sup>2</sup> equivalent area vent on the market – just 410mm long</li> <li>Easy to apply 13mm rout for installation on window profile</li> <li>Manufactured from aluminium alloy</li> </ul>	W	✓		<b>8000HDF</b>	235 20 235	18	6800	31	<b>8000HDF</b> Complete unit with AEF Flyscreen and front control		
						<b>2500EAW-IO</b>	192	13	-	-			
						<b>2500EA</b>	192	13	2500	36			
<b>GB</b>	<b>PO</b>	<ul style="list-style-type: none"> <li>Designed for use in combustion environments</li> <li>Permanent ventilation</li> <li>Conforms to BS 5440: Part 2:2000, which recommends permanent marking</li> <li>Free Area Performance</li> </ul>	W			<b>5000EAW-IO</b>	165 10 165	13	-	-	<b>2500EA &amp; 5000EA</b> Complete unit with front control		
						<b>5000EA</b>	165 10 165	13	5000	33			
						<b>5000GB</b>	176 20 176	15	5000	N/A			
<b>Permavents</b>					*refer to back page for full colour range								
<b>Bar Carrier</b>	<b>F, B, PC, PO</b>	<ul style="list-style-type: none"> <li>Provides various levels of equivalent area, based on Slotvent option</li> <li>Range of glazing options, suitable for single and double glazed units</li> <li>Slimline design requires only minimal glass reduction of 55mm</li> </ul>	W			<b>Carrier length</b>		55mm	Glass reduction			<b>Example order</b>	
						<b>BC4HD</b>	450, 600, 750, 900, 1200, 1500			3200	33		<b>BC4HD</b> + required glazing thickness, e.g. 20mm + carrier length, e.g. 750mm
						<b>BC8HD</b>	600, 750, 900, 1200, 1500			6400	31		
						<b>BCS</b>	450, 600, 750, 900, 1200, 1500			2700	33		
<b>BCGB</b>	450, 600, 750, 900, 1200, 1500	5000 Free Area	n/a										
					*refer to back page for full colour range								

Control Options **F** = Front operated **B** = Bottom operated **PC** = Pull cord operated **PO** = Permanently open

All products are independently tested to the latest **British and European standards**. Information available on request.

# Acoustic Ventilation Range

## Acoustic Window Ventilator 2500EA & 5000EA

This window ventilator achieves Building Regulations' EA requirements along with outstanding acoustic performances up to 45dB(A)



### Fresh air in or out – no noise.

The Acoustic Ventilation range ensures the required level of ventilation is provided whilst reducing the transfer of noise when dwellings are situated close to busy roads and airports. A full range of window and wall ventilators are available, including the highest performing product in the UK.

Products	DN Vent	2500EA	5000EA	EAR42W	AWV39	MA3051	AAB			
<b>Model codes</b>	DN Vent	2500EA	5000EA	EAR42W	AWV39	MA3051	AAB			
<b>Description</b>	Acoustic window ventilator	Acoustic window ventilator	Acoustic window ventilator	Acoustic window ventilator	Acoustic wall ventilator	Acoustic wall ventilator	Acoustic airbrick			
<b>Mounting options</b>	Window	Window	Window	Window	Wall	Wall	Wall			
<b>Control Options</b>	F	F	F	A	-	-	-			
<b>Features and Benefits</b>	<ul style="list-style-type: none"> <li>Acoustic window vent providing attenuation up to Dn,e,w 37dB(A)</li> <li>1400mm<sup>2</sup> equivalent area</li> <li>Internal unit (D Vent) provides upward deflection</li> <li>Suitable for installation up to two floors only</li> </ul>	<ul style="list-style-type: none"> <li>Smallest acoustic window vents providing 2500mm<sup>2</sup> or 5000mm<sup>2</sup> equivalent area ventilation on the market</li> <li>Achieves the best acoustic performance for window ventilators available within the UK – up to 45dB(A)</li> <li>A simple, yet adaptable, solution to meet required specification/ Building Regulation requirements incorporating both high levels of equivalent area ventilation and acoustic noise reduction</li> <li>Modularity of acoustic sets provides flexibility for installation and acoustic performance</li> <li>Aesthetically pleasing design which is easy to open and control by the homeowner</li> <li>Excellent airtightness performance with upward air deflection to reduce the risk of draughts</li> <li>May require add on section in some window installations</li> </ul>	<ul style="list-style-type: none"> <li>One of the best performing acoustic window ventilators available in the UK</li> <li>Provides an outstanding Dn,e,w; 42dB(A) for areas with high external noise transmission</li> <li>Humidity control to regulate supply of fresh air effectively throughout the day in response to changing indoor humidity levels</li> </ul>	<ul style="list-style-type: none"> <li>Designed for use in refurbishment applications</li> <li>Provides acoustic attenuation to Dn,e,w 39dB</li> <li>2500mm<sup>2</sup> equivalent area performance</li> <li>Suitable for wall thicknesses 255-370mm</li> </ul>	<ul style="list-style-type: none"> <li>Highest performing acoustic background ventilator</li> <li>Provides acoustic attenuation to Dn,e,w 55dB(A)</li> <li>2500mm<sup>2</sup> equivalent area performance</li> <li>Suitable for external wall thicknesses of 140mm and above</li> </ul>	<ul style="list-style-type: none"> <li>Provides acoustic attenuation to Dn,e,w 46dB</li> <li>Acoustic background ventilator</li> <li>2500mm<sup>2</sup> equivalent area</li> <li>Supplied with internal hit &amp; miss and external louvred grilles</li> </ul>				
<b>Colour/Material</b>	W	W	W	W	B/W	PVC	pre-galvanised grey steel			
<b>Extract or replacement air ventilation</b>	Replacement	Replacement	Replacement	Replacement	Replacement	Replacement	Replacement			
<b>Models</b>	1600DNFW	2500EAW, AC1	2500EAW, AC2	5000EAW, AC1	5000EAW, AC2	EAR42W	AWV39B	AWV39W	MA3051	AAB
<b>Slotvent height</b>	15.5	13	13	12	-	-	-			
<b>Slotvent width</b>	240	192	172 10 172	172 10 172	-	-	-			
<b>Acoustic performance (Dn,e,w)</b>	37dB(A)	42dB(A)	45dB(A)	39dB(A)	42dB(A)	42dB(A)	39dB	55dB	46dB	
<b>Airflow performance</b>	1400mm <sup>2</sup>	2670mm <sup>2</sup>	5350mm <sup>2</sup>	3925mm <sup>2</sup>	2500mm <sup>2</sup>	2500mm <sup>2</sup>	2500mm <sup>2</sup>			