

Compliance with Building Regulations (NI)

Technical Booklet K: 2012

1. Background Information

1.1 EnviroVent Positive Input Ventilation (PIV) systems should be fitted as per the installation instructions and in accordance with the BBA Certificate,

Agrément Certificate 03/4043
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1.2 The Whole dwelling ventilation rates in Table 2.2 below [sourced from Technical Booklet K: 2012] detail the airflow requirements for PIV. On completion of the installation, the correct preset flow rate that is appropriate to the number of bedrooms, in accordance with table should be selected on the unit, ensuring the unit delivers at least the required flow rate.

Table 2.2 Whole dwelling ventilation rates					
	Number of bedrooms in dwelling				
	1	2	3	4	5
Whole dwelling ventilation rate (1)(2) (l/s)	13	17	21	25	29
<p>Notes:</p> <p>(1) In addition, the minimum ventilation rate should not be less than 0.3l/s per m² of internal floor area. [This includes all floors, e.g. for a two storey building add the ground and first floor areas].</p> <p>(2) 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 4l/s per occupant.</p>					

[Building Regulations (Northern Ireland) 2012 Guidance - Technical Booklet K Ventilation October 2012]

2. Rationale

PIV can be used under the following conditions:

2.1 Dwellings with a volume greater than 120m³ and with an air tightness greater than >3m³/(h.m²) at 50 Pa [dwellings up to 2 storeys] do not need trickle vents.

2.2 Should the dwelling have a volume less than 120m³ or have an air envelope air tightness less than 3m³/(h.m²) at 50 Pa [dwellings up to 2 storeys], then compliance can be achieved with trickle vents. These figures are used as Positive Input Ventilation is a continuous ventilation system, figures for intermittent fans are not applicable for PIV.

2.3 Please see an extract from our BBA document regarding background ventilators:
"Section 6.2 - (d) dwelling volume is > 120m³ and air tightness is > 3m³/(h.m²) at 50Pa, for two storeys and > 5m³/(h.m²) at 50 Pa for three storeys."

Dwellings outside of the above design criteria in 2.3 above need further measures as detailed below from BBA Certificate.

3. Design Specification

3.1 Specifiers must ensure that in the overall design:

A. all rooms have an appropriately sized ventilation opening, for example an opening window, for rapid [purge] ventilation

B. any kitchen, bathroom, utility room or sanitary accommodation is directly accessible from the central hallway or landing into which the unit delivers air

C. internal doors are not tight fitting; an undercut of 10 mm above the floor finish should be sufficient [standard methods of construction should provide sufficient leakage]

D. dwelling volume is > 120 m³ and airtightness is > 3 m³/(h.m²) at 50 Pa for two storeys.

3.2 Where a design condition specified in section 3.1 is not met, additional measures should be considered, as appropriate. For example:

- Wet rooms with no openable window must have continuous low-level rate mechanical extract ventilation with boost facility.
- Remote wet rooms with openable windows must have air transfer grills or a supply of air from the unit directly into or adjacent to the wet room.
- Small and airtight dwellings [see section 3.1(d)] must include trickle ventilators.

3.3 Designers should refer to documents supporting the national Building Regulations for detailed guidance.