



Approved Document F (Ventilation) - Effective 15/06/2022

Replacing Windows

When building work is carried out on an existing dwelling that will affect ventilation for example replacing a window or door, the ventilation of the dwelling should either meet the standards detailed in Approved Document ADF 1 or be not less satisfactory than before the work was carried out.

Note: Ventilation through infiltration (draughty windows/doors) should be considered to be part of the ventilation system of a dwelling. Reducing infiltration might reduce the indoor air quality of the dwelling.

Existing Windows With Background Ventilators

If the existing windows have background ventilators, the replacement windows should include background ventilators. The new background ventilators should comply with both of the following conditions.

- a. Not be smaller than the background ventilators in the original window.
- b. Be controllable either automatically or by the occupant.

If the size of the background ventilators in the existing window is not known, the ventilator sizes in paragraph 3.15 may be applied. (See below paragraph)

Existing Windows Without Background Ventilators

Replacing the windows is likely to increase the airtightness of the dwelling. If ventilation is not provided via a mechanical ventilation heat with heat recovery system, then increasing the airtightness of the building may reduce beneficial ventilation in the building. In these circumstances, it is necessary to ensure that the ventilation provision in the dwelling is no worse than it was before the work was carried out. This may be demonstrated in any of the following ways.

- a. incorporating background ventilators on the replacement windows equivalent to the following.

- I. Habitable rooms – minimum 8000mm² equivalent area.
- II. Kitchen – minimum 8000mm² equivalent area.
- III. Bathroom (with or without a toilet) – 4000mm² equivalent area.

- b. If the dwelling will have continuous mechanical extract ventilation, installing background ventilators in any replacement windows which are not in wet rooms, with a minimum equivalent area of 4000mm² in each habitable room.

- c. Other ventilation provisions, if it can be demonstrated to a building control body that they comply with 3.2.

England

Dwellings (Replacement)

Current	New
4000mm ² per habitable room	8000mm ² per habitable room 10,000mm ² (per habitable room - single story dwellings)

Dwellings (New Build)

There are many ways where the developer can address this requirement, it is up to them to determine how they wish to achieve the adequate ventilation, which is not necessarily through trickle vents. It is therefore down to the developer to ensure they provide the window/door manufacturer with the exact requirements should they choose to use trickle vents.

Note: A window with a night latch position is not adequate for background ventilation, due to the following.

- a. The risk of draughts.
- b. Security issues.
- c. The difficulty of measuring the equivalent area.

Conservation of fuel and power

APPROVED DOCUMENT



Changes to Approved Document L (Conservation of fuel and power) - Effective 15/06/2022

England

Dwellings (Replacement)

Current	New
Windows overall U value of 1.6 W/(m ² K) or WER Band “C” or better	Windows overall U value of 1.4 W/(m ² K) or WER Band “B” or better. Timber Windows overall U value of 1.6 W/(m ² K) or Window Energy Rating Band “C” is permissible until the 14th June 2023. This is to give the manufacturers the time to transition to the standard in this table 4.2. From the 15th June 2023 overall U value of 1.4 W/(m ² K) or WER Band “B” applies.
Doors overall U value of 1.8W/(m ² K) or DSER Band “E” or better	Doors overall U value of 1.4W/(m ² K), or DSER Band “C” where the glazed area is > 60%, other doors DSER Band “B” or better. Timber doors, a maximum U- value of 1.8 W/(m ² .K) or Doorset Energy Rating Band E is permissible until the 14th June 2023. This is to give manufacturers time to transition to the standard in this table 4.2. From the 15th June 2023 the full standard of 1.4 W/(m ² .K) applies.

Dwellings (New Build)

With regards to New Build, the quoted values are the requirements using the elemental method. There is a limiting value which the builder can use should they have made improvements in other areas on the thermal performance of the dwelling, this is proved by their SAP calculation.

Current	New
Windows overall U value of 1.4 W/(m ² K) with a minimum g value 0.63, with a limiting value 2.0 W/(m ² K)	Windows & Doors with greater than 60% glazed area an overall U value of 1.2 W/(m ² K) The limiting value is 1.6 W/(m ² K)
Doors overall U value of 1.4 W/(m ² K) with a minimum g value 0.63, with a limiting value 2.0 W/(m ² K). Solid doors 1.0 W/(m ² K) with a limiting value 2.0 W/(m ² K)	Opaque doors or Semi-glazed doors (30 – 60% glazed area) an overall U value of 1.0 W/(m ² K). The limiting value is 1.6 W/(m ² K).

Overheating

APPROVED DOCUMENT



Approved Document O (Overheating) - Effective 15/06/2022

Approved Document O – New Dwellings Only

Title Purpose for which the building is intended to be used Residential (dwellings) Dwellings, which includes both dwellinghouses and flats. Residential (institutional) Home, school or other similar establishment, where people sleep on the premises. The building may be living accommodation for the care or maintenance of any of the following. a. Older and disabled people, due to illness or other physical or mental condition. b. People under the age of 5 years. Residential (other) Residential college, hall of residence and other student accommodation, and living accommodation for children aged 5 years and older.

Requirement Limits on application O1 Overheating mitigation (1) Reasonable provision must be made in respect of a dwelling, institution or any other building containing one or more rooms for residential purposes, other than a room in a hotel (“residences”) to— (a) limit unwanted solar gains in summer; (b) provide an adequate means to remove heat from the indoor environment. (2) In meeting the obligations in paragraph (1)— (a) account must be taken of the safety of any occupant, and their reasonable enjoyment of the residence; and (b) mechanical cooling may only be used where insufficient heat is capable of being removed from the indoor environment without it.

Dynamic thermal modelling A method of building modelling that predicts the internal conditions and energy demands of a building at short time intervals using weather data and building characteristics.

Summary

This pages are a brief summary of the approved documents, you should read them carefully.

For replacements you should consult either LABC / Building Control or the Competent Persons Scheme you use (Fensa/Certass etc), to establish exactly what they will be looking for when they conduct inspections.

For new build you should consult with the developer and ensure that they make you aware of what they require from the windows and doors which need to be installed