



Manufacturers of High Quality uPVC Windows, Doors and Conservatories
VAT No. 593 6400 27

Alexander Windows Ltd – FENSA Guidelines

As from 1 April 2002, Building Regulations request that building owners installing replacement windows or doors must obtain Building Regulations consent and have the installation inspected to ensure compliance with relevant regulations or have the work carried out by a certified member of FENSA (**FEN**estration Industry **S**elf **A**ssessment scheme). The relevant regulations are:

- L1** Conservation of fuel and power
- N1** Glazing protection against impact

*In addition, you must also ensure that replacement windows and doors are **no** less suitable than the existing windows and doors in relation to the following regulations:*

- A1** Structure
- B1** Means of escape in fire
- F1** Means of ventilation
- J2** Combustion appliances and fuel storage systems
- K2** Protection from falling
- M2** Access and facilities for disabled people

Repair work, such as replacement glazing or repair of rotten or damaged frame members is not subject to Building Regulation approval.

In summary we have to ensure that:

1. The replacement will achieve a U-value of 2.0 W/m²k for PVC or timber frames, or 2.2 W/m²k for metal frames.
2. Glazing within critical locations will be replaced with safety glass.
3. Existing measures for background and natural ventilation will be retained.
4. Existing measures for means of escape from relevant rooms will be retained. (If the window pattern is to be changed this may affect means of escape).
5. Open flue appliances affected by the window/door replacement will be checked for adequacy of combustion air supply by a suitably qualified person.
6. If necessary, a suitable means of support will be provided above the replacement window/door.
7. Where the dwelling was required to be constructed to provide an easily accessible threshold at entrance doors this will be retained.

Guidance on how to satisfy the requirements

Requirement A1-structure.

When installing new windows or doors an assessment should be undertaken by the contractor as to the suitability of the support of lintel above the replacement window or door.

Requirement B1- means of escape in fire

All windows to habitable rooms (but not kitchens, utility rooms, dressing rooms, bathrooms, wc's or shower rooms) at floors above ground level are required to be suitable for escape in the event of a fire. In addition, rooms at ground floor level whose only escape route is via another room must be provided with suitable escape windows.

A suitable escape window is defined as 'a window whose unobstructed openable area is at least 0.33m² and at least 450mm high and 450mm wide (a 450mm wide opening will need to be 735mm high). The bottom of the openable area should be no more than 1100mm above the floor. Any key required to open the window should be readily available.

F1-means of ventilation

See table 1 below for current requirements. If the original windows have trickle ventilators any replacement frames should also be provided with such. The area of opening windows should not be less than that which was originally provided.

As an alternative approach to the ventilation provisions listed in table 1 below, the overall provisions for background ventilations for the dwelling should be equivalent to an average of 6000mm² per room for the rooms listed, with a minimum provision of 4000mm² in each room.

Table 1 Ventilation: current requirements for various rooms

Room	Rapid ventilation	Background ventilation
Habitable room	1/20th of the floor area of the room served	8000mm ²
Kitchen and utility	Opening window (No minimum size)	4000mm ²
Bathroom/Shower rooms	Opening window (No minimum size)	4000mm ²
Sanitary accommodation	1/20th of the floor area of the room served	4000mm ²

J2 Combustion appliances and fuel storage systems

Certain fires and heating appliances rely on air infiltration for them to function correctly. They may require purpose made ventilators, or may have relied on air infiltration through existing ill-fitting windows and doors, If there is an open flued appliance in the house that does not have separate provision of combustion air, a check should be made by a suitably qualified person (CORGI, HETAS, NACE, NACS, etc) to ensure that adequate permanent combustion ventilation is provided.

The boiler or fire manufacturer's advice should be followed with regard to proximity of opening windows and doors.

K2 - protection for falling

Where a first floor window sill height is less than 800 mm above the floor level suitable guarding should be provided to prevent a person falling through an open window.

This requirement may conflict with Regulation B1 and provision of escape windows. One way of achieving the requirement may be to provide a restricted opening device that can be easily overridden in the event of an emergency.

L1- conservation of fuel and power

All UPVC and wood replacement windows should attain a minimum U value of 2.0W/m²K. Kömmerling's Connoisseur system achieves an average of 1.8W/m²K while our Double glazed units achieve 1.4W/m²K

M2 - access and facilities for disabled people

Where the property was subject to the Disabled Regulations, any new principal entrance door should have a minimum 775mm clear opening with a low threshold.

N1- glazing protection against impact

Glazing should either:

- Break safely (TSG) as defined in BS 6206:1981 Specification for impact performance requirements for flat safety glass and safety plastics for use in buildings, clause 5.3
- Be inherently robust, i.e. annealed glass, glass blocks, polycarbonate or glass that gains strength through thickness (laminated etc).
- Be in small panes (a maximum area of 0.5m² with a maximum width of 250mm is acceptable). Annealed glass should be not less than 6mm thick, except where it is in traditional leaded- or copper- lights in which 4mm glass is considered acceptable when fire resistance is not a factor.
- Be permanently protected by a suitable screen which has a minimum height of 800mm and which incorporates a gap no greater than 75mm.

Diagram 1

Glazing in Windows, Partitions Glazing in Doors and Side Panels and Walls

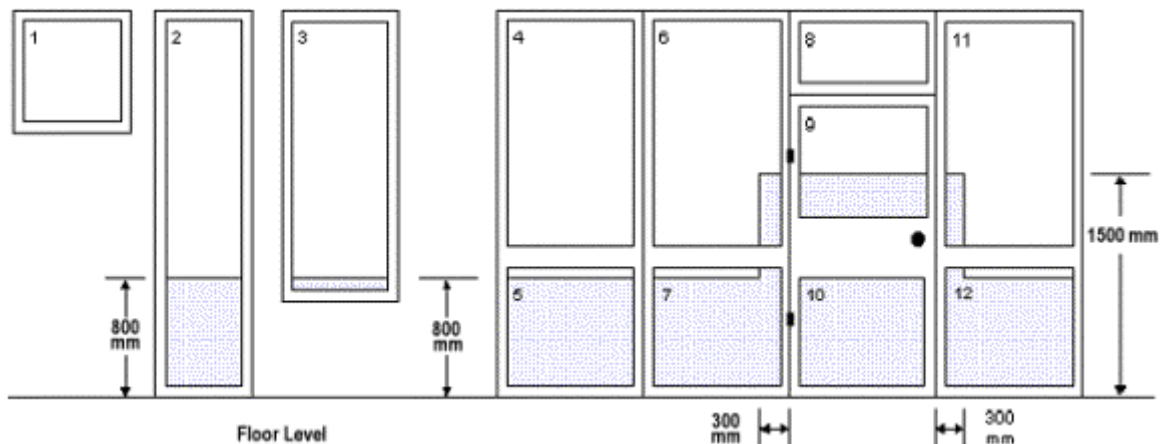


Diagram 1 gives examples of glazing in windows, partitions, walls, doors and side panels. 'Critical locations' are shaded grey. Any glazing within a shaded area must comply with BS 6206.

In Diagram 1, glazing unit No. 10 falls wholly within a 'critical location' and so the glazing must comply with BS 6206.

Where only part of a glazing unit falls within a 'critical location' the whole of that unit must comply with BS 6206. In Diagram 1 this applies to units Nos. 2, 3, 5, 6, 7, 9, 11 and 12.

In Diagram 1 only glazing units Nos. 1, 4 and 8 fall wholly outside the 'critical location' and need not comply with BS 6206.

FENSA: Frequently Asked Questions - Technical

What is a dwelling?

The definition is a "dwelling" includes a dwelling-house and a flat.

For clarification, if the main purpose of a building is to be a "dwelling" then the Regulations will apply to all replacement windows in that building. Eg. sheltered accommodation - since its main purpose is to provide dwellings for people, work on communal areas would count as work on dwellings.

How will the Regulations affect contracts other than the standard consumer installations?

All contracts (including Local Authority or Housing Association) for replacement windows and doors in dwellings can be covered by FENSA.

Use of Low Emissivity (Low-E) glass

If I use Low-E glass will it affect the colour of inserts such as Georgian Bars in the sealed unit?

There is no reason why inserts inside the sealed unit should suffer more or less discolouration where Low-E glass is used.

However, viewed from the inside, Low-E may give a different coloured effect, when they are viewed through the glass. The high performance, 'neutral low E glasses' have the least effect on colour.

Leaded Lights and Low-E glass.

Are decorative effects excluded from the Regulations?

The requirement of the Regulations specifies the overall performance of the window, or the glass. There are no exclusions for decorative effects.

Trickle Vents, Building Regulation Approved Document F, are they required for replacement fenestration?

The Building Regulations Approved Documents N (Safety Glazing) and L (Thermal Insulation) are prime requirements for replacement windows and doors. Other elements of the Building Regulations A (Structure), F (Ventilation), B (Means of escape), J (Combustion Appliances and Fuel Storage Systems), M (Disabled Access) must not be compromised by the replacement installation.

Compliance with the Gas Safety (Installation and Use) Regulations 1998 is essential.

If there is any doubt about the original compliance with the Regulations, the installer must collect evidence of the features of the original installation. It may be that ventilation in the 'partially open' position will be acceptable in some circumstances (see the guidance in Approved Document F). However, it will be good practice to offer trickle ventilation to customers to improve ventilation and help with the control of condensation. If there is any doubt about achieving compliance with regard to any of these matters, the installer should contact their local Building Control Department.

Bay windows and inspection

Bay windows are included in the inspection process. During installation inspections will include checking for steel reinforcements and header and spreader plates.

FENSA deals with replacement work on dwellings. How will refurbishment on non-dwellings be monitored?

Not by FENSA, the Local Authority Building Control Department is responsible for non-dwelling works.

Does window assessment or testing require consideration for features, such as sills, trickle vents, lead/Georgian effects?

Windows and door configurations are given in GGF Data Sheet 2.2 January 2002 'Window and Door U values: Provision of Certified Data'. Trickle vents, Georgian/leaded effects and separate sills are not included. The assessment and testing should be carried out on operational windows.

In a contract to supply doors, which have less than 50% vision area of glass, do we need to register this with FENSA and supply information?

As the U value performance of the doors with less than 50% of their area glazed is not a Building Regulation requirement for dwellings there is no need to certify. If in doubt whether Part L2 applies, please your local Building Control Department.

Do garage windows need FENSA information?

When fitted into an unheated area, which is not part of the house, the windows need not comply with the Building Regulations Approved Document L. However, you may decide to standardise your product range and the information supplied with all windows, in order to reduce variations and specials.

Disclaimer - this is our most recent interpretation of the FENSA guidelines. In all cases - check with your supplier / local council to make sure your installation fully complies. Be aware that when selling property in future enquiries will include whether you have fully complied and failure may lead to problems with selling.