

Head to Head – Fire Regulations & Conservatories.

Generally speaking conservatories on a residential properties in England and Wales, provided they meet certain criteria are exempt from Building Regulations, and therefore do not need to comply with approved document B, 'Fire Safety'. However this exemption is the subject of a Building Regulation Advisory Committee Working Party, with a consultation document due to be published at the end of 2004 or early 2005. One significant part of Approved Document B4 is 'Boundary Separation'. Should any part of a proposed conservatory fall within one metre of a boundary, that section will need to be of fire resistant construction. Currently good practice guidance is available in the form of Glass and Glazing Federation data sheets.

Materials & standards

The Building Regulations classify materials according to their performance and characteristics in the event of a fire. When tested to BS476 part 7, a strip of material is placed with one end resting against a furnace, and the rate at which flames spread along the material is measured. These materials are then classed 1, 2, 3 or 4, class one representing the lowest flame spread. Class 0 materials however are rated as 'non-combustible'. Tempered safety glass as used in conservatory construction can be regarded as a non-combustible material & therefore achieving class 0 status. Polycarbonate sheeting has achieved a class 1 rating and is classed as a TP(a) rigid thermoplastic, and can be used in conservatory construction.

The other main materials significantly used in conservatory construction are obviously PVC-u and aluminium, both these materials have also undergone testing. Aluminium has achieved class 0 rating when tested to BS476 pt 4 and an 'AA' rating when tested to part 3.

PVC-u is classed as self extinguishing and therefore will not contribute to the spread of flame, when tested it has achieved a class 1 rating to BS 476 part 6 and part 7.

Fire Escape

In 'A Good Practice Guide for Conservatories - Section 5 Part 2' the Glass and Glazing Federation state the following, "The construction of a conservatory shall not cause any means of escape to be adversely affected. To comply with Part B4 of the Building Regulations, the roof glazing should be Class 1 fire rated to BS 476-7, similarly AA rated to BS 476-3:1952, or classed as TP(a) or TP(b)".

Where the means of escape is from a 1st floor window, it is generally accepted that the addition of a conservatory below is seen in the majority of instances to aid a person's evacuation or descent. This has been demonstrated by experiences in the application of Building Regulations in Scotland.

The conservatory roof system should be designed in accordance with BS 6399-1: Loadings for buildings, code of practice for dead and imposed loads. By compliance with this standard the roof and glazing are designed to resist a minimum of 0.6kN/m² imposed load on plan, or a 0.9kN point load (this will allow maintenance and access on the roof structure).