

Understanding How Approved Document B Influences The Specification Of Fire-Rated Glazing.

Overview

Approved Document B (ADB) is one of the most frequently referenced documents in UK construction, yet it is often misunderstood.

A common assumption is that it specifies which fire-rated glazing system should be used on a project. It doesn't.

Approved Document B provides practical guidance on meeting the fire safety requirements of the Building Regulations. The choice of glazing system should always be driven by the building's fire strategy, with Approved Document B helping designers achieve the required level of life safety.

Understanding this distinction can help avoid incorrect assumptions during design and specification.

What Is Approved Document B?

Approved Document B supports the fire safety requirements of the Building Regulations for England.

It is divided into two volumes:

Volume 1 – Dwellings

Covers houses, flats and residential buildings.

Volume 2 – Buildings Other Than Dwellings

Applies to offices, schools, hospitals, hotels, industrial premises and most commercial buildings.

Although the principles are similar, the guidance varies depending on the building's use, occupancy and level of fire risk.

It is also worth remembering that Approved Document B is guidance rather than legislation. Alternative solutions may be adopted where compliance can be demonstrated, often through a fire-engineered approach.

Fire Compartmentation

One of the primary objectives of Approved Document B is to restrict the spread of fire and smoke by dividing buildings into fire-resisting compartments.

Effective compartmentation helps to:

- Protect escape routes.
- Slow the spread of fire.
- Provide more time for evacuation.
- Reduce damage to the building.
- Assist the Fire and Rescue Service during firefighting operations.

Fire-rated glazing allows these compartment lines to include glazed elements without compromising the required level of fire resistance.

Where Is Fire-Rated Glazing Typically Required?

Approved Document B does not state that every glazed screen or window must be fire-rated.

Whether fire-rated glazing is required depends on its location within the building and its role in the overall fire strategy.

Typical applications include:

- Protected stairways.
- Escape corridors.
- Entrance lobbies.
- Fire compartment walls.
- Internal glazed screens.
- Vision panels within fire doors.
- Glazed screens adjoining protected escape routes.

Every project should be assessed individually rather than relying on previous specifications or assumptions.

The Fire Strategy Comes First

One of the most common specification mistakes is selecting a glazing system before understanding the building's fire strategy.

A more logical approach is:

1. Establish the fire strategy.
2. Identify where fire-resisting construction is required.
3. Confirm the required fire classification.
4. Select a tested glazing system suitable for the application.

Following this sequence reduces the likelihood of redesign, delays and unnecessary cost later in the project.

Refurbishment Projects

Existing buildings often present additional challenges.

Original drawings may be incomplete, previous alterations may not have been recorded and existing glazing may no longer satisfy the requirements of the current project.

Before replacing or upgrading fire-rated glazing, it is good practice to confirm:

- The required fire performance.
- The supporting construction.
- Whether the existing installation has been altered.
- Compatibility with the proposed replacement system.

Assuming an existing installation remains compliant simply because it has been in place for many years can introduce unnecessary risk.

Fire Engineering

While many projects follow the guidance contained within Approved Document B, larger or more complex buildings may instead be designed using a fire-engineered approach.

In these cases, fire-rated glazing forms part of a bespoke fire strategy developed specifically for that building.

This reinforces an important principle:

The fire strategy determines the glazing specification—not the other way around.

In Practice

It's not unusual for specialist suppliers to receive enquiries requesting a particular fire rating because it was used successfully on a previous project.

While previous experience can be useful, every building should be assessed on its own merits.

Factors such as occupancy, travel distances, building height and compartment layout all influence the fire strategy. A glazing system that is entirely appropriate for one development may not be suitable for another.

Key Points

- Approved Document B provides guidance on meeting the fire safety requirements of the Building Regulations.
- It does not prescribe specific glazing systems or manufacturers.
- Fire-rated glazing is typically used where compartmentation or protected escape routes require glazed elements.
- The building's fire strategy should always determine the required fire classification.
- Early technical advice can help avoid specification changes and project delays.

Relevant Standards

- Approved Document B – Fire Safety (Volumes 1 & 2).
- Building Regulations 2010 (as amended).
- BS EN 13501-2 – Fire classification of construction products and building elements.
- BS EN 1364-1 – Fire resistance testing for non-loadbearing glazed elements.
- BS EN 1634-1 – Fire resistance testing for doorsets, shutters and openable windows.

Disclaimer

This guide provides general information on the principles of Approved Document B and should not be regarded as a substitute for the Building Regulations, project-specific fire strategies or professional fire engineering advice. Every project should be assessed individually to determine the appropriate fire safety measures and level of fire resistance required.