

# HOW TO GUIDES

## BUILDING REGULATIONS

### PART B (FIRE SAFETY)



In the process of development, whether it is the erection of a new building, extending or altering an existing building, or changing the way a building is used, you will normally need to seek Building Regulation approval and possibly Planning approval.



Planning approval establishes that the building or proposed use of land is acceptable in principal. Building Regulations specifically relate to the technical aspects of construction and cover such matters as structural stability, fire resistance, means of escape, disabled access, weather resistance, thermal insulation, drainage etc. Building Control is the part of Environmental Services which ensures that buildings are constructed and altered so that they comply with the Building Regulations, that dangerous structures are made safe and that demolitions are done in as safe a manner as possible.

The purpose of the regulations is to protect the health and safety of people in or around buildings. They also deal with conserving energy and with access and facilities for disabled people. Building Control Surveyors manage the Building Regulations. Building Control Surveyors have a wide knowledge of materials and building methods, and will assist at all stages throughout the building process.

- ▶ Requires safe means of escape from the building
- ▶ Requires the stability of a building to be maintained in a fire, both internally and externally
- ▶ Internally, the wall lining, that is plaster, plasterboard or wooden boards on the walls and ceiling will resist the spread of flames and give off reasonable levels of heat, if on fire
- ▶ Internal stability will be maintained during fire and fire spread will be prohibited
- ▶ Fire and smoke will be prohibited from spreading to concealed spaces in a buildings structure
- ▶ Externally – The external walls and roof will resist spread of fire to walls and roofs of other buildings
- ▶ The building will be easily accessible for fire fighters and their equipment

If you're planning on building a new property or extending, converting or refurbishing an existing one, you'll need to make sure it's fire safe.

The Building Regulations part B are designed to try and prevent the spread of fire, enable occupants to escape easily and fire crews to put out the fire as quickly as possible. As with all building regulations, by law you must comply with fire safety regulations 2010 when building a new property or significantly altering an existing one.

## B1 – Means of Warning and Escape

Buildings should be constructed so that occupants are able to easily escape if a fire breaks out. This means there should be more than one escape route in case the first is blocked; you'll need to look at the positioning of doors, stairs and windows for this. B1 also stipulates that there should be an alarm system in place to provide early warning of a fire. Further details can be found within Approved document B, or the Eurocell Profiles specification guide.

## B2 – Internal Fire Spread – Linings

This section is designed to slow down and prevent the spread of fire by choosing construction linings that don't burn easily. A lining refers to the materials or products used to line parts of a building such as the walls or ceilings.

## B3 – Internal Fire Spread – Structure

This covers the walls and structure of a building. These must be constructed to resist fire for a certain length of time, which is determined by the building type. This means that fire breaks should be built into cavities such as wall and loft spaces, especially in walls which connect two or more buildings.

## The requirement for cavity closers

Cavity walls provide a continuous hidden path around the building, potentially spreading fire from one part of the structure to another without being detected. Walls often form, or shroud, the critical structure of building. A fire established within this structure could lead to severe damage to the structural integrity of the whole building, leading to collapse.

Cavity barriers prevent the spread of fire by interrupting the cavity with a fire resistant material. Part B of the Building Regulations (for both residential construction and non-dwellings) requires the use of cavity fire barriers around openings in all timber or steel frame cavity walls and in masonry walls where a particular risk has been identified by the building inspector. A cavity fire barrier must span the cavity and be securely fixed. It must also pass a fire test proving its capability to maintain integrity in an intense fire and restrict heat being conducted from the fire to other parts of the structure. Cavalok is a leading cavity closure specialist in the UK, and is part of the Eurocell group. Cavalok offers a range of solutions which both meet and exceed building regulations.

## B4 – External Fire Spread

Roofs and external walls should be constructed so as to prevent the spread of fire to other buildings. This means making sure to use materials which won't allow the outside of the building to burn and reducing the amount of radiated heat produced by lining window areas.

## B5 – Access and Facilities for the Fire Service

This section involves making sure that, in the event of a fire, the fire brigade are able to access the building as easily as possible to extinguish the blaze. This means having sufficient access and space for fire services to get inside the building and operate their equipment, as well as making sure there's access to the outside of the building so they can fight a fire externally. For more detailed information on fire safety building regulations, you can download the Building Regulations Approved Document B for free from the government's planning portal website.

Sources: Approved Document B, Planning Portal

## Eurocell Profiles Fire rating

Foam profiles

Tested to BS476 Part 7:1997 Class 1 surface spread of fire.

Woodgrain profiles do not carry a fire rating.

Rigid profiles

Tested to BS476 Part7:1997 Class 1 surface spread of fire.

