

## Introduction

This section provides guidance on meeting the performance requirements for fire resistance, cavity barrier and fire stopping requirements for all upper floors where there is a Warranty requirement.

### 10.3.1 Compliance

The fire resistance of upper floors, the specification and installation of cavity barriers and fire stopping, shall satisfy the performance requirements of this section.

In all circumstances, the fire resistance of upper floors, the specification and installation of cavity barriers and fire stopping, should be in accordance with the relevant Building Regulations.

### 10.3.2 Information to be provided

The Designer shall provide sufficient design details to demonstrate it meets the requirements of this section.

A full set of design drawings and specifications should be made available to the Warranty provider and all other interested parties prior to the associated works starting on site. This may include:

1. Plans showing period of fire resistance for all upper floors.
2. Details of proposed cavity barriers including:
  - a. Specification of materials.
  - b. A third party product conformity certificate and/or test reports. This should include details of the period of fire resistance the cavity barrier achieves in relation to the site specific requirements and requirements of the relevant Building Regulations.
  - c. Plans and elevations showing positioning of cavity barriers.
3. Details of proposed fire stopping, including:
  - a. Specification of materials.
  - b. A third party product conformity certificate and/or test reports. This should include details of the period of fire resistance the cavity barrier achieves in relation to the site specific requirements and requirements of the relevant Building Regulations.

The Warranty surveyor, at their discretion, may also request supporting information that demonstrates suitability for use of any materials or systems contained within the above.

### 10.3.3 Fire resistance

All floors and ceilings shall have adequate fire resistance as required by the relevant Building Regulations. Design details shall show the correct level of fire resistance for the building in accordance with the relevant Building Regulations. Fire resistance of floors and ceilings shall take into account:

- The floor construction.
- Provision of fire stopping.
- Penetrations in floors and ceilings.

Please note, any multiple occupancy building (which includes flats /apartment accommodation) shall have fire stopping completed by a third party approved Contractor, or have a suitable quality assurance process provided to evidence the installation of the fire stopping and cavity barriers. This is applicable to all floor levels of a building that has a floor 4.5m above the lowest external ground level.

## Floor construction

All floors and ceilings should have the fire resistance required by the relevant Building Regulations. To achieve the same fire resistance, I-joists and metal web joists may require a different specification for the ceiling than that for solid timber joists. Holes should not be made in the ceilings, e.g. for down lighters, unless it can be proven that the floor construction achieves the required fire resistance.

## Provision of fire stopping

Fire stopping should:

- Be provided where required by the Building Regulations.
- Be of a materials which is suitable for the intended purpose with a relevant third party product conformity certificate.
- Be installed in accordance with the manufacturer's recommendations.
- Have no holes or gaps for smoke to pass through once the fire stopping has been fitted.
- Take account of building movement. This should be considered at design stage. The fire stopping manufacturer should be contacted for further information.

## Penetrations in floors and ceilings

### Penetrations by ducts and light fittings within floors and ceiling voids

Penetrations formed within any floors and ceilings should not comprise the fire resistance as required by the relevant Building Regulation.

For the purposes of Warranty, Supporting fire test evidence and/or extended field of application assessments should be provided upon request for the load bearing floor systems to BS EN 1365-2.

Where penetrations occur, the services and their associated components, and the fire protection measures employed to protect them must be part of the fire test certification issued for the specific floor construction.

Any materials which form a part of the test certification, should only be substituted where permitted within guidance provided in the test certification.

Proprietary sealants and/or products should be appropriately tested to the relevant material standards.

All materials and products should be fitted in accordance with the manufacturer's instructions.

### Openings for pipes in fire resisting floors

Pipes which pass internally through fire resisting floors must not compromise the required fire resistance of the element through which they pass. As a minimum, openings through floors should be as few as possible in number, as small as practicable in size and fire-stopped to the surrounding construction. For pipes passing through compartment floors, guidance supporting the Building Regulations in the relevant UK nation will need to be consulted for additional provisions.

Where intumescent paints are used to provide the required level of fire protection, certification confirming that the paint applied will achieve the correct level of fire protection is required.

### 10.3.4 Cavity barriers

Cavity barriers shall be durable and must not adversely affect the structure of the building or the performance weatherproof envelope.

Where required by statutory regulations, cavity barriers shall:

- Be of a suitable material.
- Specified and installed within the scope of the test certification and/or the third party product conformity certificate.
- Be installed in accordance with the manufacturer's recommendations.
- Be suitable for the location they are installed.

Any multiple occupancy building (which includes flats /apartment accommodation) shall have cavity barriers installed by a third party approved Contractor, or have a suitable quality assurance process provided to evidence the installation of the fire stopping and cavity barriers. This is applicable to all floor levels of a building that has a floor 4.5m above the lowest external ground level.

Where cavity barriers are required by statutory regulations, their specification, positioning and installation should satisfy the requirements of the Building Regulations.

#### Provisions for cavity barriers and fire stopping

Drawings to show the position of cavity barriers should be provided, and the specification of cavity barriers included.

