

## GUIDANCE NOTE - COMPARTMENTATION

### Introduction

All types of buildings irrespective of size, design and purpose are generally divided into individual areas and rooms. Ideally, these different areas or 'Compartments' will adequately resist the spread of any fire and smoke from one compartment to another to protect both Life and Property.

This is an example of Passive fire protection and the expected standard of fire resistance is often referred to as the level of 'compartmentation'.

The buildings insurers will expect the property to comply with relevant building standards. Fire safety legislation also requires the risk of fire to be assessed and managed. Compliance with building standards or better is the normal, acceptable way to achieve this.

Satisfactory levels of compartmentation are required between Flats, common parts, roof voids, plant rooms, basements, car parks, etc as per current guidance for purpose-built blocks of flats and converted residential properties.

Often 30 minutes minimum resistance is required between various components although this may be part of an overall greater accumulative resistance between compartments of 60 minutes or more. Some levels of compartmentation need to be greater to satisfy the building regulations and or manage specific risk depending on several factors including the building size and purpose.

All components that separate one area from another make up that compartmentation and may include Walls, ceilings, floors, doors, hatches, vents, windows, and other glazing, etc. The materials used in their manufacture and installation should meet the relevant standards and provide a satisfactory level of fire resistance.

Cupboards and rooms containing a high fire risk such as electrical intake cupboards need to be adequately separated from flats and common parts.

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### **What is the level of compartmentation in my block, and is it acceptable?**

Irrespective of the Fire strategy of your premises (Stay Put or Simultaneous Evacuation) building fire safety standards require the escape routes to be protected. This requires satisfactory compartmentation between the common parts (corridors, lobbies, staircases, etc) and all surrounding areas to prevent fire spread and facilitate safe evacuation, firefighting, etc.

It is possible that some standards of compartmentation have not been adequate for many years or ever and has gone unnoticed or ignored. Structural alterations may have taken place without appropriate compartmentation maintained or installed. Damage, wear and tear, and disturbance of critical areas can take place over time reducing the level of compartmentation.

Contractors may fail to take sufficient steps to ensure the standard of compartmentation is maintained following any installation or maintenance work. Typically, this includes electrical or plumbing work which requires creating holes and gaps to pass services through.

Additionally, past fire incidents and subsequent review have prompted improvements to building standards and legislation which in many circumstances require upgrade work to take place in order to achieve compliance.

You should have an up to date, suitable and sufficient Fire risk assessment which covers the common parts plus associated areas and building features.

The assessment will inspect and report on all relevant accessible and visible common areas to check that there are no obvious breaches of compartmentation. This often includes riser cupboards where cable and pipe work penetrations or the enclosure itself may not be to a suitable standard.

The assessment, usually a non-intrusive assessment will assume that hidden areas are to the required standard unless any concerns are noted.

If necessary, a further, possibly intrusive assessment or compartmentation survey may be necessary to obtain suitable validation.

Often loft spaces with an access hatch noted in the common areas and locked cupboards/rooms off the common areas where access is not possible at the time may require further investigation.

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### Common Issues

#### **Loft hatch in common parts is not secure or Fire resisting.**

This may require further investigation to determine whether there is a fire risk in the roof void (ignition sources and combustible items) and whether the hatch door needs to be fire resisting to provide the required level of compartmentation between the void (and flats) and the common parts. All hatches to be locked shut with restricted access.

The opportunity should be taken to inspect the level of compartmentation at the loft floor/flat ceiling which is sometimes compromised or not built to required standards.

#### **Holes including around cable/pipework penetrations or gaps in walls/ceilings. (Firestopping)**

When it is not possible to see if a penetration through a wall or ceiling might continue and lead to another compartment (cupboard to corridor, corridor to flat, cupboard to flat, car park to floor above, etc) it should be confirmed and/or appropriately sealed. This is common inside riser cupboards where no firestopping or excessive amounts of pink or intumescent foam is applied or where plastic pipes have no intumescent sleeves or collars.

Foam is useful for small holes or gaps of a few millimetres, and used for door and window frames but more substantial areas require the use of other recognised proprietary fire rated items such as intumescent sealants, putty, Fireboards (batting), wrapping, sleeves, collars, dampers, putty, etc.

#### **Electrical equipment or other fire risk not enclosed or within a suitably fire resisting enclosure.**

Inadequate materials or installation providing unsatisfactory levels of compartmentation which require upgrading. Or exposed equipment within common parts.

#### **Fire doors including Flat front doors which are not fire resisting.**

Doors, frames, door furniture (hinges, self closers, locks, etc), door features (glazing, cat flaps, letterboxes, vents, etc) may affect the standard of compartmentation between the flats and common areas or between other areas. This is covered in more detail in separate guidance.

**See example pictures on final pages.**

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### Who needs to carry out surveys and or improvement work?

Typically, most builders will have some relevant experience including fire safety work and will claim to offer this service. However, all too often evidence of poor workmanship is found regarding this critical safety work. Compartmentation work is specialised and someone with demonstrable competence is essential to ensure compliance with standards.

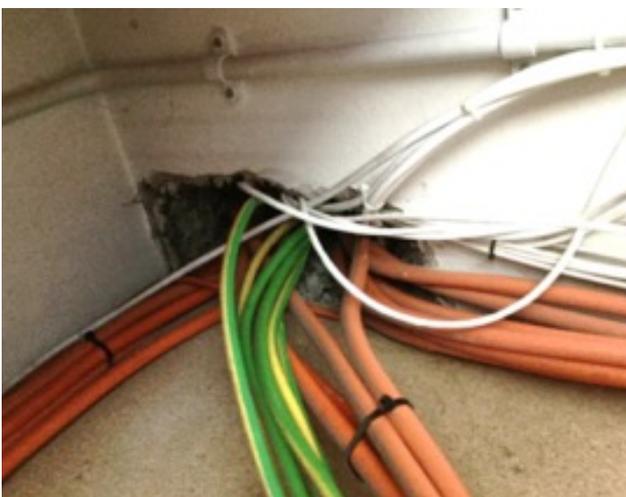
For higher risk buildings and or complicated work, a competent independent surveyor will carry out investigation works and make recommendations. A competent contractor will carry out the work and the surveyor will re-inspect and validate it.

For smaller scale works, a competent contractor may inspect, recommend, and carry out improvement work, which can be validated by another competent person such as a fire risk assessor accordingly.

Cross reference with the AFP register of approved contractors.

### Who will carry out any remedial work?

This, as with other inspections, surveys, statutory or otherwise will be covered by the service charge. Any considerable unforeseen costs will need to be prioritised and managed accordingly, with possible interim measures implemented such as short-term encapsulation, etc.



Lack of fire stopping.



Loft hatch of unknown fire resistance not secured.

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Inadequate fire resisting enclosure.



Hole - unknown fire stopping.



Exposed electrical equipment.



Poor stopping of gaps around cables.



Inadequate wall construction.



Excessive/Inappropriate use of pink foam.