

Fire Safety of Notice Boards in Fire Escape Routes

Wall mounted notice boards, display boards and bulletin boards are used in many areas as simple and convenient ways of communicating information to staff, students and visitors. What is often overlooked is the potential of some types of board, together with the appended paperwork, to present a significant fire risk which can contribute to undermining the fire integrity and fire safety of a building. The most dangerous types are those constructed of a wooden frame with a fibre-board base, often covered with baize or similar material, that are fully open with no glazing or similar material to cover and protect the displayed notices and paperwork.

Legislation such as the Building Regulations and, particularly, the Regulatory Reform (Fire Safety) Order 2005, set out a number of requirements regarding the type and quality of surface paint systems, fixtures and fittings, etc., within a building to inhibit the spread of fire over the internal surfaces and to ensure adequate compartmentalisation of an area and to maintain safe means of escape.

The Fire Risk Assessments carried out at the University in 2007 by external consultants drew the University's attention to the risks associated with notice boards, and recent discussions with the local fire brigade have confirmed that action to replace unsuitable boards should be taken.

The University therefore wishes to ensure, with immediate effect, that only boards meeting the relevant fire safety standards (which are dependent upon the proposed location and other factors) are purchased and fitted. In the future, a rolling programme of identifying and replacing unsuitable notice boards will be introduced commencing with those in public circulation areas, fire escape routes and other higher risk locations.

In the first instance this will be the responsibility of the school or department, and in the second instance third party inspections will raise awareness of notice boards that will require replacement.

Schools and Departments which are considering purchasing notice boards for their areas are requested to contact Estates & Facilities or the University Fire Safety Adviser who have produced the following guidance to assist you with the legal requirements before proceeding with any purchase or installation.

Guidance on the Placement & Use of Notice Boards in Fire Escape Routes

INTRODUCTION

Wall mounted notice boards, display boards and bulletin boards are used as a simple and convenient way of communicating information to staff and students. As these boards are usually fixed to the walls of corridors or rooms within buildings, it is important to consider their fire safety aspects.

WHAT REGULATIONS APPLY TO NOTICE BOARDS?

Building Regulations

Building regulations prescribe that internal wall linings inhibit the spread of fire within a building by adequately resisting the spread of flame over their surfaces and by limiting heat release, in case of ignition, to levels reasonable in the circumstances.

The Regulatory Reform (Fire Safety) Order 2005

The University's buildings fall under the requirements of the Buildings and Fire Precautions Legislation and therefore must meet specific standards relating to means of escape in the event of fire. The use of fire doors, fire compartmentalisation and appropriate fire resistant building materials within a building are essential components of a fire prevention management strategy.

In the event of fire, open style notice boards which have substantial amounts of paper attached can significantly reduce the protection provided by fire resistant building materials and compartmentalisation.

Open style notice boards with loose sheets of paper present an easy target for an arson attack, thus increasing the potential to smoke log the means of escape and prevent evacuation, or even cause death by smoke inhalation or fire spread. Our fire risk assessment identifies this as a High risk however; the level of risk can be reduced by removing or replacing open style notice boards. This provides a further compelling argument to include notice boards under prevailing fire precaution legislation, notably The Regulatory Reform (Fire Safety) Order 2005.

RULES AND GUIDELINES FOR THE SPECIFICATION AND USE OF NOTICE BOARDS

It is a general principle of fire safety that escape corridors should not contain significant levels of fuel. Therefore it is important to ensure that there are appropriate rules in respect of notice boards in any building.

Estates & Facilities strongly recommends that the following guidance is observed in the selection and use of notice boards.

The classification of fire spread is measured using specific test conditions as laid out in British Standards 476.

BS 476 Part 7 test measures the lateral spread of flame along the surface of the specimen in the vertical position. The classification system is based on the rate and extent of flame spread. The levels of irradiance are specified in the standard, e.g. 32.5 kW/m^2 at 75 mm measured along the sample which is placed at right angles to the radiant heat source.

To achieve a Class 1 classification the flame spread after 1.5 and 10 minutes must be less than 165 mm.

Where even higher standards of fire performance may be required, i.e. hospitals, schools, universities, old peoples' homes, etc., the fire performance requirement should meet the Class 0 classification of the Building Regulations.

To satisfy the Class '0' classification the material, in addition to meeting the Class 1 of BS 476 Part 7, must meet certain performance criteria of the BS 476 Part 6 test.

The BS 467 part 6 test indicates the performance of a material in the early stages of a fire and the test result is a Fire Propagation Index which is dependent on the ignition characteristics, the amount and rate of heat release and the ability of a material to accelerate fire growth. The lower the Index then the better the resistance of a material to fire growth.

To achieve the class 0 classification requires:-

1. BS 476 Part 7 (Surface spread of flame) Class 1 AND
2. BS 476 Part 6 (Fire propagation)

Further guidance on the classification system is available from the University Fire Safety Adviser.

SUITABLE NOTICE BOARDS FOR DIFFERENT AREAS OF A BUILDING

Dead End Corridors, Protected Stairways & Lobbies to Protected Stairways

- No open style notice boards are allowed.
 - ✓ *Suitable notice boards for these areas are glazed notice boards with aluminium frames and lockable fire resistant doors.*
- Where there is no alternative means of escape from a corridor then only notice boards which meet Class 0 requirements will be permitted.
 - ✓ *Suitable notice boards for these areas are glazed notice boards with aluminium frames, lockable fire resistant doors and Class 0 core materials with Class 0 fire resistant covering.*

Corridors with an Alternative Means of Escape

- Suitable notice boards for these areas are glazed notice boards with aluminium frames and lockable fire resistant doors.
- In corridors of less than 1.5m wide notice boards should only be fixed on one side of the corridor.
- In corridors of 1.5m to 3m wide notice boards can be fixed on both sides of the corridor if required.
- In corridors over 3m wide no such limitations apply; the level of a potential fuel in case of fire should be kept to a minimum in all circumstances. Notices on the boards should not overhang the edges of the boards or be stacked. Notice boards meeting National Class 1 requirements (European Class C - open type with fire resistant material covering) may be used in a corridor with an alternative means of escape provided that the surface area of the Class 1 materials does not exceed 20% of the total ceiling and wall surface area of the corridor.
 - ✓ *Suitable notice boards for these areas are open notice boards without frames or with aluminium frames covered with National Class 1 or European Class C fire rated material.*

In applying the 20% surface area factor, any posters, display boards or similar items fixed to the wall or ceiling surfaces shall be included in the calculation as Class 1 items.

Atrium Areas

- In Atrium areas only glazed notice boards to Class 0 requirements should be installed as fixed items.
 - ✓ *Suitable notice boards for these areas are glazed notice boards with aluminium frames, lockable fire resistant doors and Class 0 core materials with Class 0 fire resistant covering.*

Notice Boards within Rooms

- Notice boards should never be of a lower fire rating than National Class 3 or European Class D.
- Where notice boards are to be fixed in rooms the following rules will apply:
 - a. Where the risk of fire is high then all notice boards must be Class 0 and glazed.
 - ✓ *Suitable notice boards for these areas are glazed notice boards with aluminium frames, fire resistant doors and Class 0 core materials with Class 0 fire resistant covering (if covered).*
 - b. In small rooms (of a size less than 30 m²), notice boards can be Class 3 (European Class D).
 - ✓ *Suitable notice boards for these areas are open notice boards without frames (wrapped) or with aluminium, plastic or wooden frames.*
 - c. The 20% rule described above applies to large rooms (of a size greater than 30m²). Notices on the board should not exceed the edges of the board or be stacked. Notice boards meeting National Class 1 requirements (European Class C - open type with fire resistant material covering) may be used in a corridor with an alternative means of escape provided that the surface area of the Class 1 materials does not exceed 20% of the total ceiling and wall surface area of the corridor.
 - ✓ *Suitable notice boards for these areas are open notice boards without frames or with aluminium frames covered with National Class 1 or European Class C fire rated material.*

The remaining area must be covered or glazed and comply with Class 0.

- ✓ *Suitable notice boards for these areas are glazed notice boards with aluminium frames, fire resistant doors and Class 0 core materials with Class 0 fire resistant covering.*

In applying the 20% surface area factor, any posters, display boards or similar items fixed to the wall or ceiling surfaces shall be included in the calculation as Class 1 items.

For added fire safety, open boards meeting Class 0 requirements may be used in corridors where Class 1 is required. Please note that the Class 0 rating applies to the notice board only and that uncovered notices on the board represent fuel in case of fire. Glazed Class 0 notice boards are recommended where the risk of fire or arson is high.

Please also note that wood framed notice boards can never meet the requirements of National Class 0 or 1.

Notice Board Management

The following instructions are the responsibility of the school or department.

- Notices should not overhang the edges of the notice board.
- Overlaying of secondary notices should not be allowed.
- Furniture should not be placed underneath notice boards in order to prevent continuity of fuel supply.
- Fly posting on walls should not be permitted.

Glossary of terms

[Note: further assistance and advice on the specification of notice boards and other technical issues can be obtained from the University Fire Safety Adviser]

Class 0, 1, 3, C, D, etc, refer to fire rating standards; the appropriate standard must be specified when ordering a notice board.

Dead End Corridors

A corridor from which escape is only possible from one direction.

Protected Stairways

A stairway which is adequately protected from the rest of the building by fire resisting construction *ie* with fire doors protecting against the spread of smoke and flames, from any room or corridor; it must be a 'sterile area' *ie* with no combustible material within it, and with wall coverings which will not support the spread of fire.

Lobbies to Protected Stairways

A fire resisting enclosure providing access to an escape stairway via two sets of fire doors and into which no room opens other than toilets or lifts.