

ESTATES OPERATIONS

HEALTH & SAFETY DOCUMENT	-	CODE of PRACTICE
DOCUMENT TITLE	-	GLAZING
ISSUE DATE & VERSION	-	APRIL 2018 v1.4

Please Note – the guidance provided in this Code of Practice pertains only to the Estates Operations Group and its operations. For Imperial College’s Health & Safety policies and Codes of Practice go to: <https://imperial.ac.uk/safety>.

INTRODUCTION

This Code of Practice sets down the standards for the management of glazing within the College. It is intended to assist in meeting the requirements of current legislation and British Standards, and sets out procedures on how to achieve safe environments for College staff, students and visitors.

Over and above the general duty of care owed by the College to its staff, students and others under the Health and Safety at Work etc. Act 1974, glazing is legislated by the Workplace (Health, Safety and Welfare) Regulations 1992.

This Code of Practice provides the following:

- A definition and the scope of the applicable Regulations and British Standards
- The duties imposed on the employer / employees and others
- Responsibilities of duty holders and employees

1. Overview and Introduction to Glazing

Workplace (Health, Safety and Welfare) Regulations 1992 Employers have a general duty under section 2 of the Health and Safety at Work etc Act 1974 to ensure, so far as is reasonably practicable, the health, safety and welfare of their employees at work. People in control of non-domestic premises have a duty (under section 4 of the Act) towards people who are not their employees but use their premises. The Regulations expand on these duties and are intended to protect the health and safety of everyone in the workplace, and ensure that adequate welfare facilities are provided for people at work.

BS6262-4: 2005 Glazing for buildings — Part 4: Code of practice for safety related to human impact. This British Standard gives safety recommendations for the vertical use of glass and plastics glazing sheet materials in locations likely to be subject to accidental human impact. The recommendations are intended to reduce impact related injuries and in particular the risk of cutting and piercing injuries.

BS6262-1: 2005 Glazing for buildings — Part 1: General methodology for the selection of glazing. This part of BS 6262 gives a general methodology for the selection of an appropriate choice of glass, plastics glazing sheet material and method of glazing.

2. Duties Imposed on the Employer/Employees/Others

Regulation 14 of the Workplace (Health, Safety and Welfare) Regulations 1992 impose on those responsible a duty to undertake a risk assessment of their glazing in critical locations, in order to identify any glass that could create a risk of injury to the building users or visitors. To this end Estates Operations should appoint a suitably competent person to carry out the following actions.

Risk Assessment

An initial risk assessment of the glazing areas is required in order to determine whether there is a risk of injury. The risk assessment should take into account the following factors:

- The location of the glazing
- The activities taking place nearby
- The volume of traffic and pedestrians
- Any previous experience of incidents

Following this Estates Operations will determine the type of glass and its current safety rating within the 'critical locations' identified; (further guidance on **critical locations** can be found below).

Following the completion of the risk assessment process, a number of actions may be required. Consideration should be given to:

- The re-organisation of traffic routes to avoid the glazing being broken.
- The installation of suitable barriers or screens to prevent people or vehicles coming into contact with the glazing.
- The modification of the glazing to reduce the risk of injury e.g. by applying a safety film which prevents it shattering in a dangerous manner, or by marking it to prevent people from walking into it.
- Limiting the area of glazing.
- Replacing the glazing with an alternative safety material.

Critical Locations

BS6262 Part 4 provides further recommendations on what areas should be classified as 'Critical Locations'. These include:

Risk Code 1 – Panels in doors and panels next to doors (within 300mm) up to 1500mm from finished floor level.

Risk Code 2 – Low level panels within 800mm from finished floor levels.

Risk Code 3 – Glazing in balustrades.

Risk Code 4 – Glazing in wet areas (bath or shower screens or other wet areas where there is a possibility of slipping).

Risk Code 5 – Areas of special interest (e.g. indoors sports facilities).

Windows

Openable windows, skylights and ventilators should be capable of being opened, closed or adjusted safely and, when open, should not pose any undue risk to anyone. Windows and skylights should be designed so that they may be cleaned safely. When considering if they can be cleaned safely, account may be taken of equipment used in conjunction with the window or skylight or of devices fitted to the building.

Safety Film Specification

Where the risk assessment process determines the use of safety film as a required action, the following guidance should be used.

When using safety film to upgrade glazing, there are two recognised levels of protection. Whilst the requirement for glass safety in 'critical locations' is EN12600 Class 3 (other than in and around doors of greater than 900mm width which requires Class 2) the standard 100 micron film will meet Class 2 where installed on 3mm, 4mm or 6mm glass (whether in a double glazed unit or not).

However also available is a 175micron safety film which meets EN12600 Class 1. This is more appropriate where the requirement is more robust in places such as for glazing in sports halls for example.

The standard safety films are clear and when installed professionally should be difficult to detect. However all glazing in critical locations should be marked to indicate it is a safety material. The marking on the film should be installed onto the film in label form but in such a manner that is not removable. The label should be approximately 25mm in diameter.

Skylights

Protection is needed when anyone passes by or works near to fragile materials, e.g.: fragile roof lights.

Wherever possible Estates Operations will make sure that all fragile materials 2m or closer to the people at risk are securely covered and a warning notice displayed. Alternatively, they will provide continuous physical barriers with warning notices around or along the fragile material to prevent access to it.

Sometimes it will not be reasonably practicable to provide such protection, usually if the proximity to fragile material is irregular and short duration, ie a matter of minutes. Safety harnesses will usually be the appropriate solution and may be used in conjunction with any permanently installed running line systems.

Further guidance can be found in Estates Operations' [Code of Practice on Working at Height](#).

3. Responsibilities of Duty Holders and Employees

The College has a responsibility to protect the health and safety of everyone in the workplace, and ensure that any area of glazing or other transparent or translucent surface in a wall, partition, or door or gate does not present a risk to College staff, students or visitors. To this end we have appointed suitably competent persons to carry out the actions below.

- Undertake a suitable and sufficient risk assessment of all glazed areas;
- If a risk is identified ensure that required actions are carried out to:
 - prevent people or objects coming into contact with the glazing.
 - upgrade the glazing so that if it breaks, it breaks safely.
 - mark large expanses of glazing in some way that people know it is there.

Employees and students have a responsibility not to undertake any activities within the workplace that may cause themselves or others harm and adhere to the information, instruction and training provided. They must immediately bring instances having the potential to cause harm to the attention of their immediate line manager.

Appendix 1 - Guidance Documents Available

A simple guide to workplace health, safety and welfare.

This guide provides information about the legal requirements of the Workplace (Health, Safety and Welfare) Regulations 1992.

It gives a general indication of some of the main requirements of the Regulations. The guidance documents are available at the following link:

<http://www.hse.gov.uk/pubns/indg244.pdf>

The following link provides a PDF copy of the Workplace (Health, Safety and Welfare) Regulations 1992 Approved Code of Practice:

<http://www.hse.gov.uk/l24.pdf>

Glass and Glazing Federation

Further guidance can be obtained from the Glass and Glazing Federation, accessed via this link:

<http://www.ggf.org.uk/publications>

British Standards

Further guidance regarding the British Standards on glazing can be accessed via the British Standards website below:

<http://www.bsigroup.co.uk>