



Safety Note 55

Eye protection for University staff and students

1. Introduction

Selection and wearing the correct eye protection at work is very important; damage from impact, chemicals, lasers or ultra violet light is likely to be serious and permanent. Eye protection must always be seen as a last resort and other measures of controlling the risk to eyes must be implemented first.

2. Supervisors duties

Line management and supervisors are responsible for:

- identifying eye hazards associated with work activities undertaken by staff and students
- carrying out risk assessments to eliminate, or where this is not possible, control these hazards
- providing any eye protection identified as being necessary.

Risk assessments must also identify any others who may be harmed by the activity and who may need protection (for example, but not limited to, other facility users, visitors, maintenance staff).

Schools are responsible for ensuring that eye protection is used as instructed, is maintained in good condition and is replaced when damaged.

Eye injury hazards

Some of the more common eye injury hazards include:

	Hazard	Source
Chemical/biological	Chemical splashes	Laboratory work, maintenance and cleaning work
	Liquid aerosols	Laboratory work
	Steam jets	Pressure vessels
	Fine dusts and powders	Laboratory work, maintenance work e.g. wall sanding
	Fumes, vapours and gases	Varnishing, using adhesives. Laboratory work
	Biological agents	Laboratory work, first aid, waste management
Radiation	Ionising and infra red	Laboratory work, gas welding
	Visible light	High intensity artificial light, strong sunlight
	Ultra-violet	Transilluminators

Postgraduate students should also be provided with eye protection free of charge, as required by risk assessment. This will normally be basic eye shields or communal specialist equipment. If prescription eye protection is regarded as essential due to the nature and/or long duration of the work, the School must pay for these.

9. Requirements for visitors

Contractors are required to provide their own eye protection. Other visitors to hazardous areas should be provided with suitable eye protection in accordance with the findings of risk assessments.

Appendix 1 Selection of occupational eye protection

There are three main types of eye protection: spectacles, goggles and face shields.

Spectacles can come as twin type lenses (including corrective prescription lenses) held within a conventional spectacle frame or one-piece single lens units sometimes known as eye shields. The more modern style of spectacles come with adjustable side arms for improved fit and comfort and often side shielding. Also included in this category are the eye shields designed to be worn over normal prescription glasses.

Goggles may also come as twin lenses type (cup frames) or single lenses with box frames. Goggles are usually held in position by a headband and provide complete enclosure of the eyes. Frames may sometimes include direct or indirect ventilation to prevent misting of the lenses. In some cases larger box type goggles can be worn over prescription glasses.

Face shields may comprise a single piece sheet or moulded visor attached to a brow guard or headband and some available can be attached to a safety helmet. Face shields provide protection to all or part of the face and may be worn over prescription glasses. Some face-shields can provide protection to UV radiation. Welding face-shields are opaque with an aperture to accommodate welding filters.

Selection of the correct type of eye protectors depends on the nature of the hazard.

EN166:2001 classification of standards

Impact Protection Standards	
A	High energy impact (190m/s)

N	Not to be used	Spectacles and goggles
Other		
3	Liquid droplets	Goggles recommended
3	Liquid splashes	Spectacles, goggles or face shields dependent on chemicals and volumes used
4	Large dust particles (>5µm)	Goggles
5	Fine dust, vapours and gases (<5µm)	Goggles
8	Short circuit electric arc	Face shield only
9	Molten metal and hot solid	Goggles and face shield
Lens filters 5 or 6	Sun glare / natural ultra violet	Spectacles with 100% UV protection. Filter 5 without IR specification. See EN170-172 also.
Lens filters 2 or 3	Ultra violet (artificial)	UV specified face shields. Filter 2 colour recognition may be affected. See EN170-172 also.
	Lasers	Spectacles and goggles - care must be taken to select the correct lens filter for the laser wavelength
	Welding	Specific welding face shields with appropriate filter (numbered 1-7). See EN379 also.