

Protecting Your Eyes

More than 90,000 eye injuries occur each year in the United States. Many of these could have been prevented with proper protective eyewear. The California Occupational Safety and Health Administration (Cal/OSHA) requires that protective eyewear be worn wherever there is the potential for injury from flying particles, hazardous substances, or dangerous light. The eyewear must meet the standards put forth by the American National Standards Institute (ANSI) in Standard Z87.1-1989. Safety eyewear that meets this standard has "Z87.1" imprinted on the frame or lens. Since eye hazards are common in laboratories and shops, it should be a standard practice to wear eye protection in these areas.

A variety of goggles, safety glasses, and face shields are available to protect your eyes from flying particles, hazardous chemicals, and sharp projections. An overview of the different kinds is given below. Be sure to pick the type that protects you against the particular hazards of your work.

Safety glasses with side shields are designed to protect the eye from particles, projections, and, to a certain degree, hazardous chemicals. (Safety glasses must have side shields to meet the ANSI standard. Removing the shields voids the ANSI approval.) The lenses are impact-resistant, and the frames are much stronger than those found on fashion eyewear.

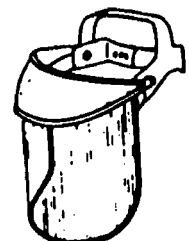
Most safety glass lenses are made of polycarbonate, although some are made of glass. Glass lenses are more resistant to chemicals and cleaning solvents and may be a better choice in situations where the glasses will require frequent cleaning. Safety glasses are available with either plano (non-corrective) or prescription lenses.



Goggles provide more protection than safety glasses and should be worn wherever there is a potential for hazardous liquids to splash. In general they provide much better protection from smaller particles and liquids because they seal against the face. Also, they can be worn over normal prescription lenses if needed.



Face shields protect both the eyes and face when working with strongly corrosive chemicals that pose a splash hazard. Because face shields do not seal against the face, goggles should be worn under a face shield when handling strong corrosives.



Types of Protective Eyewear

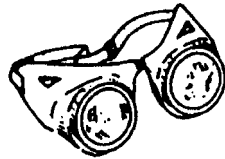
Safety Glasses

Goggles

Face Shields

Welding/ Chipping Goggles

Welding goggles are designed to protect your eyes from both hazardous light and hot particles. Among its other hazards, welding can generate infrared (IR) light.



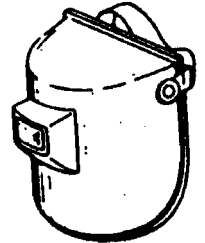
IR-safe lenses have special IR-absorbing dyes molded into them. Their degree of protection is rated on a "shade" scale. The higher the shade number, the higher the protection from IR. Be sure the glasses, goggles, or shields you pick have a high enough shade factor for your kind of work. Tint alone doesn't guarantee protection.

EH&S can help you find the right shade factor.

Chipping goggles are untinted and should be used where flying chips or flakes of material are a problem.

Welding Helmets

Welding helmets provide eye and skin protection from ultraviolet rays and slag during arc welding.



Laser-Safe Eyewear

For information on protective eyewear for work with laser light, call the Radiation Safety team at EH&S (642-3073).

How Can I Get Protective Eyewear?

You can order non-prescription safety glasses, goggles, and face shields from most safety supply companies. If you wear corrective lenses, you can wear non-prescription goggles over your fashion eyewear or get safety glasses with corrective lenses. Your department will pay for safety glasses if you need them to perform your job safely.

You can obtain safety glasses with corrective lenses through the UC Berkeley School of Optometry located in Minor Hall Addition. You do not need to use your Vision Service Plan (VSP) to obtain safety glasses for work. You will need an Inter-Office Charge (IOC) form and your prescription. Because reimbursement allowances vary, consult with the purchasing personnel in your department before making an appointment.

If you have questions regarding the appropriate protective eyewear for your job, contact your supervisor or EH&S at 642-3073.