

PPE: Hand Protection Requirements

Department: Industrial Hygiene and Information Management

Program: Personal Protective Equipment

Owner: Program Manager

Authority: ES&H Manual, Chapter 19, Personal Protective Equipment¹

Protective gloves must be worn in work areas where the potential exists for injuries to the hands or the potential spread of contaminants. Common hazards include

- Chemical exposure
- Extreme heat or cold exposure
- Electrical exposure
- Materials handling
- Radioactive material
- Ergonomic exposure

The type of glove to use depends on the particular hazard in a work area:

- Abrasion-resistant gloves for handling sharp or rough objects
- Electrical lineman gloves for both low- and high-voltage electrical hazards
- Chemically resistant gloves for working with hazardous chemicals
- Flame-retardant and heat-resistant gloves for working with extremely hot materials
- Cold-resistant gloves for working with cryogenics
- Rubber or other suitable gloves for handling contaminants
- Padded gloves to relieve ergonomic stress

Chemically resistant gloves must be selected for use with the specific chemicals to be handled. Managers and supervisors should consult with the PPE program manager to determine which gloves provide the best protection against specific chemicals. The following table presents common tasks, hazards, and PPE.

Task	Hazard	Hand Protection
Lab work, medical, light mechanical operations	Mild irritants	Disposable gloves
Lab work, light mechanical work	Slippery objects, mild heat or cold	Fabric gloves
Welding, plasma cutting, brazing, grinding	Sparks or scraping against rough surfaces; electricity	Leather gloves (used in combination with an insulated liner when working with electricity)
Cutting or working with other sharp instruments	Cuts and scratches	Metal mesh gloves
Working molten materials	Intense heat	Aluminized gloves
Working with corrosives and chemicals	Corrosives, oils, and solvents (especially if the hand will be immersed in a chemical)	Chemical-resistant gloves

¹ *SLAC Environment, Safety, and Health Manual* (SLAC-I-720-0A29Z-001), Chapter 19, “Personal Protective Equipment”, <http://www-group.slac.stanford.edu/esh/general/ppe/policies.htm>