














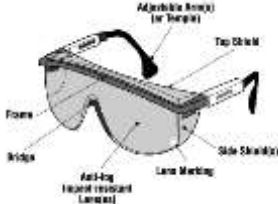



	Illness and Injury Prevention Program (IIPP) HATS PPE SELECTION GUIDE
	ENVIRONMENTAL HEALTH & SAFETY 1620 Standley Dr., MSC 3578, P.O. Box 30001, Las Cruces, NM 88003-8001 Phone: 575-646-3327 • Fax: 575-646-7898 • http://safety.nmsu.edu







This document is to be used as a supplement to the Hazard Assessment Tool for Shops in the selection of appropriate personal protective equipment (PPE) for the Shop.¹







Applicable PPE	Specific type	Characteristics	Applications
Light latex, vinyl or nitrile gloves	Disposable latex gloves 	Powdered or un-powdered	Working with biological hazards (human blood, body fluids, blood borne pathogens, specimens)
	Disposable nitrile gloves 	Puncture, abrasion resistant, protection from splash hazards	Working with Biological Hazards and chemical splash hazards
	Disposable vinyl gloves 	Economical, durable, similar to latex	Biological Hazards
Light chemical resistant gloves	Natural rubber latex 	Chemical resistant, liquid-proof	Working with small volumes of corrosive liquids, organic solvents, flammable compounds
Light to heavy chemical resistant gloves	Nitrile gloves 	Chemical resistant, good puncture, cut, and abrasion resistance	Apparatus under pressure, air or water reactive chemicals
Heavy chemical resistant gloves	Butyl gloves 	High permeation resistance to most chemicals	Large volumes of organic solvents, small to large volumes of dangerous solvents, acutely toxic or hazardous materials
	Viton® II gloves 	High permeation resistance to most chemicals	Same as butyl gloves, plus hazardous material spills

¹ Products illustrated can be purchased from numerous manufacturers and/or suppliers, including, but not limited to, Laboratory Safety Supply, Grainger Industrial Supply, Fisher Scientific, VWR and others.

Applicable	Specific type (example)	Characteristics	Applications
Heavy chemical resistant gloves (cont.)	<p>Butyl/Silver Shield gloves and apron</p> 	Extra chemical and mechanical protection	Same as butyl and Viton II gloves, added mechanical protection, hazardous material spills
Insulated gloves	<p>Terrycloth autoclave gloves</p> 	Heat resistant	Working with hot liquids and equipment, open flames, oil bath
	<p>Cryogen gloves</p> 	Water resistant or water proof, protection against ultra-cold temperatures	Cryogenic liquids handling
Wire mesh gloves		Cut resistant	Working with sharp tools or equipment
Chemical resistant apron	<p>Rubber-coated wash apron</p> 	Chemical splash protection, good abrasion resistance	Working with apparatus under pressure, air or water reactive chemicals, large volumes of corrosive liquids
	<p>Neoprene apron and sleeves</p> 	Chemical resistant, tear resistant	Water or air reactive chemicals, large volumes of corrosive liquids, small to large volumes of acutely toxic corrosives

Applicable PPE	Specific type (example)	Characteristics	Applications
Shop Aprons	Leather Shop Apron 	Protects clothing from dirt, dyes, debris, or non-hazardous chemicals	General industrial, maintenance, construction, carpentry, or shop applications
	Denim Shop Apron 	Protects clothing from dirt, dyes, debris, or non-hazardous chemicals	General industrial, maintenance, construction, carpentry, or shop applications
Safety glasses	Glasses 	Polycarbonate lens, side shields for eye protection. Meets ANSI and OSHA specifications	Working with chemical, biological, or physical hazards.
	Glasses/Goggle Hybrid 	Impact resistant lens with anti-fog coating and polyurethane foam seal	Working with chemicals, biological, dusty or overhead work
Goggles	Tight fitting goggles 	Tight fitting, protects eyes from impact, spray, paint, chemicals, flying chips, dust particles Polycarbonate lens, indirect ventilation, meets ANSI and OSHA specifications	Working with large volumes of corrosive liquids, organic solvents, hazardous chemicals, air or water reactive chemicals, dusty or dirty operations
	Laser Goggles 	Appropriately shaded goggles; optical density based on beam parameters	Working with Class 3 or Class 4 lasers

Applicable PPE	Specific type (example)	Characteristics	Applications
Face shield		Chemical resistant face shield	For use with mild acids, caustics, aromatic hydrocarbons. For use when splash hazard. For use when using air or water reactive or in operations that produce flying particles.
Safety shield		High-impact-resistant, clear polycarbonate, magnetic base.	Protects operator from flying chips (swarf), sparks, and splashing coolant generated at the machines point of operation
Respirators	N-95 	Protects against dusts, fumes, mists, microorganisms	Working with high amounts of debris or dusty environments
	Half face 	Air purifying respirator protects against variety of particulates, vapors, dust, mists, fumes; depends on filter cartridge used	Working with high amounts of debris or dusty environments; chemical vapors; particulates
	Full face 	Same as half- face, but with greater protection factor, and greater protection of eyes and face; depends on filter cartridge used	Working with high amounts of debris or dusty environments; chemical vapors; particulates
	SCBA 	Self-Contained Breathing Apparatus is a device that provides air in an immediately dangerous to life and health (IDLH) atmosphere	Working in a confined space where the atmosphere is unpredictable or uncontrollable.

Applicable PPE	Specific type (example)	Characteristics	Applications
Hearing Protection	Disposable Ear Plugs 	Polyvinyl Chloride (PVC) or Polyurethane foam, one time use design (no cleaning), one size fits all, light weight, low cost, blocks all sound	Working with high powered equipment such as shop machinery, power tools, or gas powered equipment.
	Reusable Ear Plugs 	Silicone, tapered fit, reusable (needs cleaning), corded or uncorded, light weight, more durable than disposable	Working with high powered equipment such as shop machinery, power tools, or gas powered equipment. Can be used for
	Hearing Band 	Ear plugs connected to a flexible band that can be worn around the neck when not needed	Working with high powered equipment such as shop machinery, power tools, or gas powered equipment.
	Earmuffs 	One size fits all, fits better for longer periods of time, higher noise reduction rating, very durable, dielectric	Working with high powered equipment such as shop machinery, power tools, or gas powered equipment.
Footwear Protection	Slip Resistant 	Slip resistant sole, comfortable, light weight	Working in areas made of tile, marble, or terrazzo.
	Safety Boots 	Steel toe offers toe protection, durable, puncture resistant	Working in areas with power tools or heavy machinery used in construction.
	Chemical Resistant Boot 	High permeation resistance to most chemicals	Working with large amounts of chemical compounds or during chemical spill clean-up