

Office of Laboratory Safety

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Glove Selection Guide

This guide only provides general PPE guidance. Always review the safety data sheet for the chemical(s) being used and the PPE manufacturer's specifications before selecting appropriate PPE.

Glove Type	Photo	Use Type	Advantages	Disadvantages
Nitrile, Disposable		Incidental chemical contact use only General lab chemical use Commonly used in the medical field	Good general lab use glove, adequate protection from many organic solvents, oils, greases, and some acids and bases Good protection from blood, cell lines, and tissue Clear indication of tears and breaks Excellent dexterity Non-allergenic	Not effective for direct contact use Not effective for use with many halogenated solvents
Neoprene, Disposable		Incidental chemical contact use only General lab chemical use	Good protection from many acids, bases, peroxides, fuels, alcohols, and phenols Clear indication of tears and breaks Excellent dexterity	Not effective for direct contact use Not effective for use with many halogenated solvents
Latex, Disposable		Incidental chemical contact use only Commonly used in the medical field Not suitable for many lab settings	Good protection from many biological agents, including blood, cell lines, and tissue Provides good protection from some acids and bases Excellent dexterity	Not effective for direct contact use Not effective for use with many organic solvents Allergenic Difficult to detect tears and breaks
Butyl Rubber		Suitable for direct contact with some chemicals	Good protection from many ketones, esters, gases, vapors, acids, and bases Can be decontaminated reused Puncture and tear resistant	Not effective for use with gasoline, aliphatic, aromatic, and halogenated hydrocarbons Poor dexterity
Viton	*	Suitable for direct contact with some chemicals	Good protection from many chlorinated and aromatic hydrocarbons Can be decontaminated reused Puncture and tear resistant	Not effective for use with ketones Average dexterity
Polyvinyl Chloride	*	Suitable for direct contact with some chemicals	Good protection from many acids, bases, oils, fats, peroxides, and amines Can be decontaminated reused Puncture and tear resistant	Not effective for use with many organic solvents Average dexterity

General Purpose Nitrile Coated	1	Incidental chemical contact use only	Good all-purpose work glove where very minor chemical contamination is possible; provide minimal chemical resistance Can be decontaminated reused Puncture and tear resistant	Not effective for direct and/or prolonged exposure to chemicals
Leather		Non-hazardous material handling; not to be used with chemicals	Good all-purpose work glove for non-hazardous material handling Puncture and tear resistant	Not effective for use with hazardous chemicals; leather absorbs liquids Poor dexterity
Cut-Resistant		Used when handling sharp objects Incidental chemical contact use only	Excellent cut resistance to sharp objects such as razor blades and pipette tips Some provide minimal chemical resistance Can be decontaminated and reused Good dexterity and grip	Not effective for direct and/or prolonged exposure to chemicals
Cryogenic Gloves		Used when handling cryogenic surfaces	Excellent protection from cryogenic surfaces and liquids such as liquid nitrogen Designed to be reused for long periods of time	Not effective for direct and/or prolonged exposure to chemicals Poor dexterity
Heat Resistant Gloves		Used when handling hot surfaces	Excellent protection from hot surfaces such as autoclaves and drying ovens Designed to be reused for long periods of time	Not effective for use with hazardous chemicals; leather absorbs liquids Poor dexterity

Glove selection Revised: 10/25/2017