












CALTECH Environment Health & Safety - Glove Selection QUICK GUIDE

Glove Material	Intended Use	Advantages and Disadvantages	Example Photos
Latex (natural rubber)	Incidental contact	<p>Good for biological and water-based materials. Poor for organic solvents. Hard to detect puncture holes. Can cause or trigger latex allergies.</p>	
Nitrile	Incidental contact (disposable exam glove) Extended contact (thicker reusable glove)	<p>Excellent general use glove. Good for solvents, oils, greases, and some acids and bases. Clear indication of tears and breaks. Good alternative for those with latex allergies.</p>	
Butyl rubber	Extended contact	<p>Good for ketones and esters. Poor for gasoline and aliphatic, aromatic, and halogenated hydrocarbons.</p>	
Neoprene	Extended contact	<p>Good for acids, bases, alcohols, fuels, peroxides, hydrocarbons, and phenols. Poor for halogenated and aromatic hydrocarbons. Good for most hazardous chemicals.</p>	
Norfoil	Extended contact	<p>Good for most hazardous chemicals. Poor fit (Note: Dexterity can be partially regained by using a heavier weight Nitrile glove over the Norfoil/Silver Shield glove.)</p>	
Viton	Extended contact	<p>Good for chlorinated and aromatic solvents. Good resistance to cuts and abrasions. Poor for ketones. Expensive.</p>	

For further information please refer to the chemical Safety Data Sheets at <https://safety.caltech.edu/sds> .
 Additional Glove Selection Guides are available under the [Manuals, Forms, & Other Resources](#) tab of the EH&S Website.

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Glove material	Intended use	Advantages and disadvantages	Example Photos
Polyvinyl chloride (PVC)	Specific use	<p>Good for acids, bases, oils, fats, peroxides, and amines. Good resistance to abrasions Poor for most organic solvents.</p>	
Polyvinyl alcohol (PVA)	Specific use	<p>Good for aromatic and chlorinated solvents. Poor for water-based solutions.</p>	
Stainless Steel Kevlar Leather	Specific use	<p>Cut-resistant Gloves</p> <p>Sleeves are also available to provide protection to wrists and forearms.</p> <p>(If potential for biological or chemical contamination: wear appropriate disposable gloves on top of your cut-resistant gloves and discard after use).</p>	
Cryogenic Resistant Material Leather	Specific use	<p>For use with cryogenic materials.</p> <p>Designed to prevent frostbite. Note: Never dip gloves directly into liquid nitrogen.</p>	
Nomex	Specific use	<p>For use with pyrophoric materials.</p> <p>Consider wearing a flame-resistant glove such as a Nomex 'flight' glove with a thin nitrile exam glove underneath.</p>	

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