

All Gloves Are Not Created Equal

Although thin disposable “examination-style” gloves are among the most common safety equipment worn by laboratory workers, these kinds of gloves are only suitable for handling small volumes of low hazard materials, and for protecting research products from the oils or enzymes present on human skin. Research has shown that many common laboratory solvents (including 70% ethanol) readily permeate examination-style gloves, and that manufacturing quality controls are not as rigorous as for surgical and utility grade gloves. Double gloving does increase the level of protection by providing an additional barrier layer, but is no substitute for donning heavier, more permeation-resistant gloves from the start. Keep these limitations in mind whenever working with hazardous materials. Please contact the Office of Environmental Health and Safety at 785-3550 for specific recommendations on protective equipment, including gloves

Basic Glove Types



Disposable “Exam Style”
(latex, vinyl, nitrile)

Disposable “Exam Style”:

Suitable for most routine lab activities handling low hazard materials by methods unlikely to result in glove contact. Double gloving can offer additional protection if regularly removed and replaced with fresh gloves.



Heavy “Utility Style”
(nitrile)



Heavy “Utility Style”
(neoprene)

Heavy “Utility Style”:

Handling higher hazard materials and all material with greater likelihood of glove contact (e.g. bulk pouring solvents, concentrated acids). Heavier construction increases protection over disposable gloves. Select elastomer based upon glove permeation data.



Teflon Gloves

“Teflon” Gloves:

Worn inside “utility” grade gloves to provide multiple barrier protection against high permeability/high toxicity materials where glove contact is possible. However, flat construction of Teflon gloves makes dexterity difficult, even when worn under more pliable utility gloves.