MONTANA STATEFUND

Protective Glove Selection

Teach Your Employees How To Be Safe Every Day

SOME RESEARCH has shown that 80% of total body exposure to chemicals is to the hands. When working with any chemicals, no single glove will protect your hands completely.

SELECTION. The selection of the proper chemical-resistant glove begins with an evaluation of the job application. Factors that influence this selection are:

- the type of chemicals to be handled
- frequency and duration of chemical contact
- nature of contact
- concentration of chemicals
- temperature of chemicals
- abrasion/resistance requirements
- puncture-, snag-, tear-, and cut-resistance requirements
- length to be protected
- dexterity requirements
- grip requirements
- cuff edge
- color requirements
- thermal protection
- size and comfort requirements
- price

The type of chemical being used is the key factor for choosing of what material the glove should be made. When possible use the specific chemical as the basis for the selection. With emulsifiable concentrates, volatile solvents (like toluene and xylene) and nonvolatile solvents (like alkylated napthalenes and petroleum oil) correct glove selection is critical.

Physical performance may be a more critical factor in some cases than chemical resistance. If a job application involves handling heavy, rough, or sharp objects then the glove must have high resistance to abrasion, cuts, snags, etc. A hole in a glove can result in a much greater chemical exposure potential.

Common glove materials:

butyl - a synthetic rubber with good resistance to weathering and a wide variety of chemicals

rubber - a highly flexible and conforming material made from a liquid tapped from rubber plants

neoprene - a synthetic rubber having chemical and wear-resistance properties superior to those of natural rubber

nitrile - a copolymer available in a wide range of acrylonitrile (propane nitrile) content; chemical resistance and stiffness increase with higher acrylonitrile content

polyethylene - a fairly chemical-resistant material used as a freestanding film or a fabric coating

polyvinyl alcohol - a water-soluble polymer that exhibits exceptional resistance to many organic solvents that rapidly permeate most rubbers

polyvinyl chloride - a stiff polymer that is made softer and more suitable for protective clothing applications by the addition of plasticizers

polyurethane - an abrasion-resistant rubber that is either coated into fabrics or formed into gloves or boots

Server Shield - a registered trademark of North Hand Protection, it is highly chemical-resistant to many different class of chemicals

Viton® - a registered trademark of DuPont, it is a highly chemical-resistant but expensive synthetic elastomer