

SAFETY FIRST

WEAR GLOVES



Queensway
Navigation
Co. Ltd

Quarterly
Safety
Bulletin

PPE -
Safety Gloves

This safety bulletin is for:

► **Masters and crew on board Company's fleet**

The hand is one of the most complex parts of our body – the movement of the tendons, bones, tissues and nerves allows you to grip and do a wide variety of complex jobs. Without our hands, it would be extremely difficult to do routine simple tasks, such as opening doors, using a fork, or tying our shoes. The work place can create many hazards such as:

- Abrasions
- Cutting
- Chemicals
- Heat / Cold
- Electricity

Therefore, it is imperative to **select** the most appropriate gloves for a particular task and determine how long they can be worn and whether they can be reused. It is important to know the performance characteristics of gloves relative to the specific job and hazard anticipated e.g. chemical hazards, cut hazards and flame hazards. These performance characteristics should be assessed by using standard test procedures.

1 When handling rough, sharp-edged objects and very hot /cold materials

Gloves should also be worn whenever it is necessary to handle rough or sharp-edged objects, and very hot or very cold materials.

Bitumen carriers: This category includes the special purpose gloves made of polyester-cotton and nitrile coating which are designed for intermittent handling dry heat contact 180°C and they protect from cuts.

Applications: Handling hot glass or hot castings, demoulding rubber tires, belts and profiles, removing sterilized products from autoclaves.

2 When working with tools

Extra attention must be given to protecting the hands when working with tools and machinery. Power tools and machinery must have guards installed

or incorporated into their design that prevent the hands from contacting the point of operation, power train, or other moving parts.

3 To protect hands from injury due to contact with moving parts, it is important to:

- Ensure that guards are always in place and used
- Always lock-out machines or tools and disconnect the power before making repairs
- Treat a machine without a guard as inoperative

4 When working with Chemicals

Chemical Protection Gloves should always be used when handling chemicals. The selection of the appropriate type of Safety Gloves for the particular chemical to be handled is of great importance. These gloves could be made of rubber, neoprene, polyvinyl alcohol or vinyl, etc. The gloves protect hands from corrosives, oils, and solvents. The phrase commonly found on the Material Safety Data Sheet (MSDS) "Wear impervious (or impermeable) gloves" has very limited value. It is technically inaccurate.



No glove material will remain impervious to a specific chemical forever.

No glove material is resistant to all chemicals. Some chemicals will travel through or permeate the glove in a few seconds, while other chemicals may take days or weeks.

Information specifying the best type of chemical protective material is what should be on the MSDS (e.g. neoprene, butyl rubber). If this information is missing, contact the supplier or manufacturer of the product.

5 When working with Electricity

Rubber insulating gloves are among the most important articles of personal protection for electrical workers. To be effective, electrical safety gloves must incorporate high dielectric and physical strength, along with flexibility and durability.

GLOVES → Basic Instructions

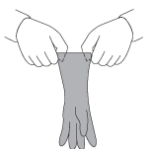
- Choose hand protection that adequately protects from the hazard(s) of a specific job and adequately meets the specific tasks involved in the job (such as flexibility or dexterity).
- Be aware that some materials may cause reactions in some workers such as allergies to latex. Offer alternatives where possible.
- Ensure the gloves fit properly.
- Ensure all exposed skin is covered by gloves.
- Gloves should be long enough so that there is no gap between the glove and sleeve.
- Do not wear gloves with metal parts near electrical equipment.
- Do not use worn or torn gloves.
- Clean gloves as instructed by the manufacturer.
- Follow the manufacturer's instructions for care, decontamination, and maintenance of gloves.

GLOVES → Inspection

Safety Gloves should be frequently inspected not only when in circulation but also when in storage, especially before given to any crew member. Safety gloves should be visually inspected by every crew member before use.

- ▶ Inspect and test gloves for defects before using
- ▶ Test all rubber or synthetic gloves for leaks by inflating them (see figures below)

Step 1



Hold cuff as illustrated, with thumbs inside, stretch cuff slightly.

Step 2



Swing glove outward and over towards the face, two or three times, trapping air inside.

Step 3



Squeeze inflated portion of glove with left hand, causing rubber to expand and magnify any defect.

Step 4



If large numbers need testing use a compressed air jig.

Step 5



Double roll cuff over and grip with right hand.

GLOVES → Selection by Type of Glove

| Glove Type | Use |
|--|---|
| Disposable gloves | Made of latex, nitrile or vinyl, can protect from allergies etc., but cannot provide protection from cuts, abrasions, strong chemicals etc. Some persons are allergic to Latex! |
| Cotton & fabric gloves | They can keep hands clean and protect against abrasions, but may not be strong enough to handle work with rough or sharp materials. They are generally used to improve grip when handling slippery objects. They also help insulate hands from mild heat or cold. |
| Coated fabric gloves | They can provide protection against some moderate concentrated chemicals. They can be used in laboratory work provided they are strong enough to protect against the specific chemical being handled. |
| Rubber, plastic or synthetic gloves | Can be used when cleaning or working with oils, solvents and other chemicals. |
| Leather gloves | They should be used when welding, as the leather can resist sparks and moderate heat. The risk of cuts and abrasions also can be minimized by wearing leather gloves. They may also be used in combination with an insulated liner when working with electricity. |
| Aluminized gloves | These gloves, made of aluminized fabric, are recommended for welding, furnace and foundry work, as they provide reflective and insulating protection from intense heat. |
| Kevlar gloves | They have a wide variety of industrial applications. They are cut and abrasion resistant and provide protection against both heat and cold. |
| Chemical / liquid-resistant gloves | Several types of gloves help protect against specific chemicals: Natural latex/rubber gloves: water solutions or acids, alkalis, salts, and ketones Neoprene gloves: hydraulic fluids, gasoline, alcohols and organic acids Nitrile rubber gloves: chlorinated solvents Butyl rubber gloves: nitric acid, sulfuric acid, hydrochloric acid and peroxide |

GLOVES → Selection by Hazard Factor

| Hazard | Degree of Hazard | Protective Material |
|---|--|--|
| Abrasion | Severe | Reinforced heavy rubber, staple-reinforced heavy leather |
| | Less Severe | Rubber, plastic, leather, polyester, nylon, cotton |
| Sharp Edges | Severe | Metal mesh, staple-reinforced heavy leather, Kevlar® aramid-steel mesh |
| | Less Severe | Leather, terry cloth (aramid fiber) |
| | Mild with delicate work | Lightweight leather, polyester, nylon, cotton |
| Chemicals and fluids (chemical handling especially caustics and solvents, degreasing, metal fabrication, refining-oil & petrol, petrochemicals, plating) | <i>Risk varies depending, among other factors, on the type of chemical, its concentration, and contact duration. Refer to the manufacturer or product MSDS</i> | Dependent on chemical. Examples include: Natural rubber, neoprene, nitrile rubber, butyl rubber, PTFE (polytetrafluoroethylene), Teflon®, Vitom®, polyvinyl chloride, polyvinyl alcohol, Saranex™, 4H®, Chemrel®, Responder®, Trelliche m® , Scorpio® 09-022 |
| Cold | | Leather, insulated plastic or rubber, wool, cotton jersey lining |
| Heat | High temperatures (over 350 °C) | Zetex® |
| | Medium high (up to 350 °C) | Nomex®, Kevlar®, neoprene-coated, heat-resistant leather with linings |
| | Warm (up to 180 °C) | Nomex®, Kevlar®, heat-resistant leather, terry cloth (aramid fiber), Crusader Flex® 42-474, Scorpio® 09-022. |
| | Less warm (up to 100 °C) | Chrome-tanned leather, terry cloth |
| General Duty | | Cotton, leather |
| Product Contamination | | Thin-film plastic, lightweight leather, cotton, polyester, nylon |
| Radiation | | Lead-lined rubber, plastic or leather |

→ ALWAYS wash your hands after removing gloves ←

