

# How to choose the right glove for the job

---

Make sure you're wearing gloves to protect your hands when there is a potential for hand injury; sounds simple enough, right? The truth, however, is that there's a whole lot more to it than that and that a good number of injuries occur because the wrong glove was selected.

So how are you supposed to make sure that you have the correct glove?

This article is going to try to answer that question and provide a step-by-step procedure to selecting the correct glove for each situation or application

The steps are as follows:

1. Identify why a glove is necessary
2. Identify the hazard
3. Select the appropriate material for that hazard
4. Size the glove correctly
5. Assess other factors

Let's walk through each of these in turn...

## 1. Identifying why a glove is necessary

There are two reasons why a glove might be necessary.

- a. **To protect the hands against the product** – In this category we have chemical resistant gloves, leather gloves, anti-vibration gloves, etc... The basic nature of this assessment says that the product that we are handling has the potential to cause injury that we need the glove to protect us against.
- b. **To protect the product against the hands** – Many products would be contaminated by oils and particles that are on the hands (think circuit boards here). Protecting the product against the user is the reason why a glove is needed in this application.

## 2. Identifying the hazard

Hazards fall into one of the following categories

- a. **Abrasions, scrapes and cuts** – What we mean by this is that the nature of the surface we are trying to protect ourselves against will determine which glove material will work best. Rough surfaces, sharp edges and puncture potentials need to be protected against.
- b. **Chemicals** – Various chemicals have adverse properties when it comes to contact with skin. The nature of the chemical will determine the nature of the polymer we will have

to use to protect the hands. MSDS sheets and chemical resistant charts from the individual manufacturer will be used to determine which glove will offer the best protection.

- c. **Viruses, Bacteria, blood-borne pathogens and body-fluids** – Latex and/or Nitrile gloves are most often used to protect against this hazard. <sup>1</sup>
- d. **Temperature** – Whether extreme heat or extreme cold
- e. **Power** – Electrical current

### 3. Selecting the appropriate material for the hazard

The type of material that you select for the gloves you will be wearing will, of course, vary with the task that you are doing. If, for example, you are dealing with oil based substances, you will want to make sure that you **do not use** latex gloves as oil will degrade latex (To see this happen, simply inflate a latex glove and spray it with WD40 and watch the glove explode), Nitrile gloves would be a better choice.

The list of the different materials available is a long list indeed and includes cotton, leather, vinyl, nitrile, latex, PVC, Neoprene, Butyl, Viton, Hypalon, Kevlar, Dyneema, Spectra, Polyvinyl Alcohol (PVA) and more....

In addition, there are combinations such as leather palm gloves with cotton backing that allow you to get the benefits of the leather where needed but with the breathability of cotton on the back of the hand. This category includes a large selection of dipped gloves as well.

Other gloves, such as Hexarmor gloves use a hard substance with a backing on it to cover small areas to the whole of the glove in order to make the glove cut resistant and even, when several alternating layers are used, needle-stick resistance.

You will need to do a little research to make sure that you have the right material. For chemicals, you can get a chemical resistance chart or online tool for evaluating which material holds up best for the specific chemical that you are dealing with. You should also be able to get help from your safety and glove distributor (We, for example, at National Safety, Inc. help customers select the appropriate glove in conjunction with the different manufacturers. [www.nationalsafetyinc.com](http://www.nationalsafetyinc.com) )

---

<sup>1</sup> **Note:** Sometimes the glove that is used to protect can become the hazard itself. This is seen most notably in the case of latex allergies. Latex allergies can develop over time and cause serious adverse effects. In such cases, switching to Nitrile or some other polymer can solve the problem.

#### 4. Sizing the glove correctly

It is also important to make sure that you are wearing the right size glove. Some gloves like the Seamless String Knit Glove (view the [glove here](#)) will stretch to fit most hands but many other gloves are sized specifically for the individual user.

Making sure that you've got the correct size is simply a matter of grabbing a tape measure (a flexible one, like tailors use) and measuring around your hand across the palm, excluding the thumb as shown in the illustration below.



Based on that measurement select your size from the table below:

- 6" ---XS
- 7" --- Small
- 8" --- Medium
- 9" --- Large
- 10" --- XL
- 11" --- 2XL

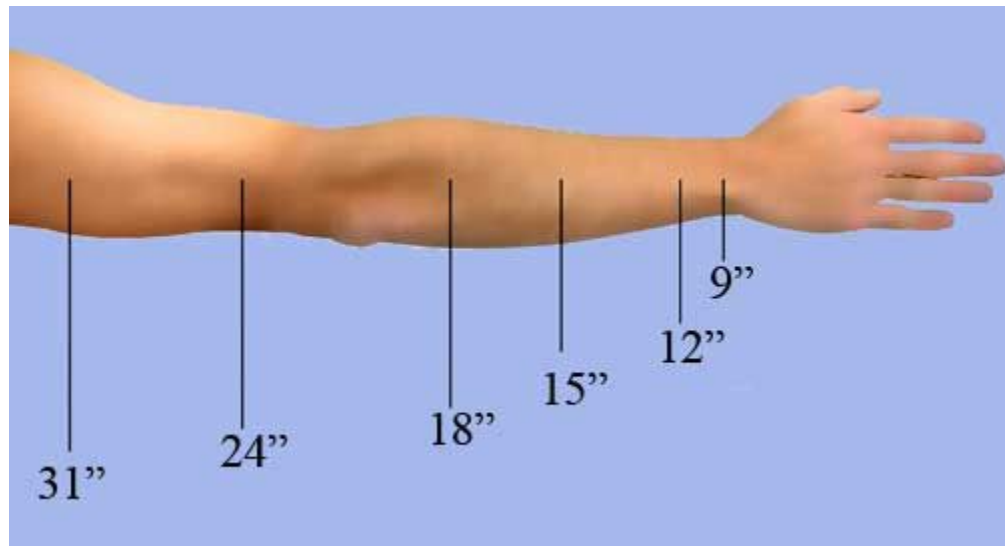
#### 5. Assessing other factors

Having done all the above, you are almost ready to select the glove that you will need. Additional factors that you need to consider before you make your glove selection are:

1. **How long do you need the glove to be?**

Do you simply need to protect the hands themselves or is there a need to protect the

wrists and even part of the arm? Length of glove is important to the assessment of the correct glove. Use the chart below to make the right selection



**2. Do you need a safety cuff?**

If you are working around moving parts and machinery, for example, you will probably want a safety cuff on your glove to allow the glove to slip off the hand if it should get caught in the machinery rather than pulling the hand into it.

**3. Are there vibration and/or impact issues to consider?**

Vibration and impact issues require special anti-vibration gloves in order to help fight a condition known as “white finger” (also known as Hand-Arm Vibration Syndrome or HAVS). It is beyond the scope of this article to go into this condition in too much detail but you can find out more about this condition at [www.havsrn.com](http://www.havsrn.com).

**4. What are the temperature issues (cold weather, hot weather, rain, etc...)?**

Leather gloves, for example provide a certain amount of resistant to cold but loose much of that quality when they get wet. Insulated cold weather gloves might be a better choice for rain and snow.

In hot weather, workers will prefer gloves that breathe, allowing the hands not to get too sweaty.

## Appendix A – Glossary of Terms

### Leather terms

**Back Leather** – Leather made from the back of the animal (See illustration below)

**Belly Leather** – Leather made from the belly of the animal (see illustration below)

**Buckskin** – Leather made from the hide of a deer or a buck. There is “genuine Buckskin” which is the outer hide of the deer or buck and “Split buckskin” which is the undercut of the deer or buck hide.

**Butt Leather** – Leather made from the rump or hind end of the animal (See Illustration below)

**Cowhide** – Leather made from the hide of a cow. The advantage of this leather is that it is comfortable, durable, breathable and it has excellent abrasion.

**Deerskin** – Leather made from the hide of deer

**Goat Skin** – Leather made from the hide of a goat. Strong, durable and soft leather with great abrasion.

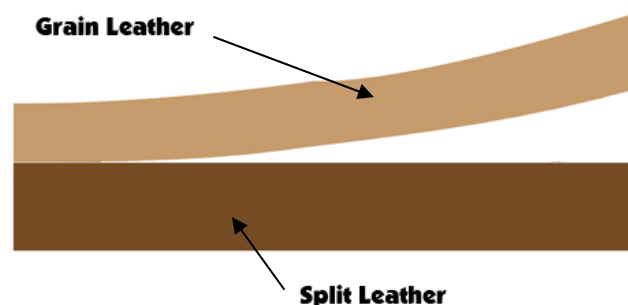
**Grain Leather** – The exterior surface of the hide, where the animal hair was. This leather is normally smooth and resistant (See illustration below).

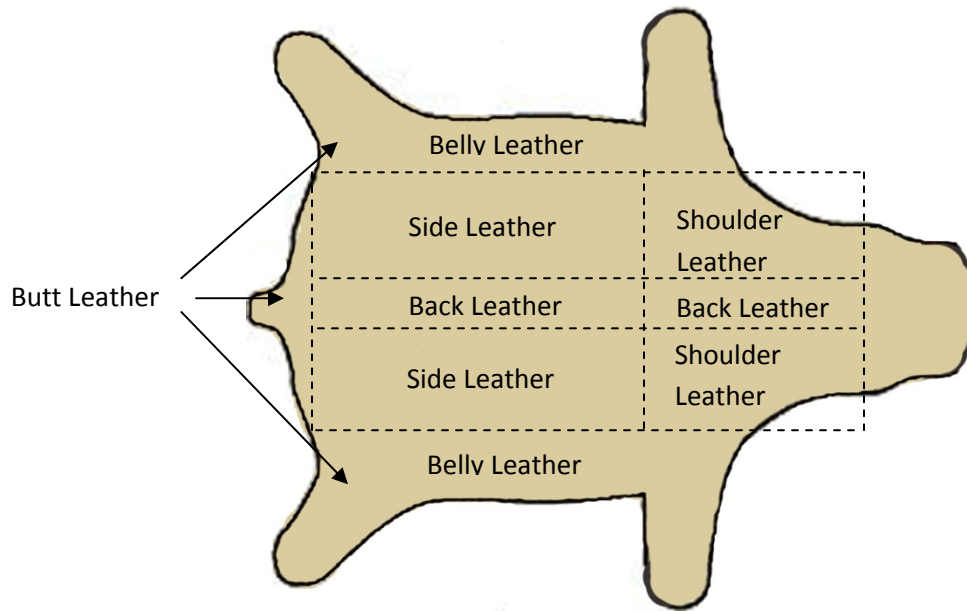
**Pigskin** – Leather made from the hide of a pig. This is a very soft leather that withstands moisture more than other types of leather. It also has extreme breathability

**Shoulder leather** – Leather from the shoulder of the animal (see illustration below)

**Side Leather** – Leather from the side of the animal (see illustration below)

**Split Leather** – This leather is the hide that is “underneath” the grain, or top, leather. In terms of quality, the side split is best, followed by the shoulder split with the belly split being the most inferior (See illustration below).





## Types of Liners

**Fleece** – A Brushed Cotton Lining

**Foam** – A synthetic foam padding liner

**Pile** - A synthetic wool liner

**Polyester Fiber**- A hollow fiber insulation

**Thinsulate®** – A Micro fiber Insulation

## Glove and Cuff Styles

**Beaded Cuff** – Sometimes called “rolled cuff”, this cuff is slightly beaded, or rolled, to provide drip protection from liquids that might otherwise roll down the glove onto the arm or wrist.

**Knit-Wrist Cuff** – This cuff is a tighter knit around the wrist to help hold the glove in place.

**Safety Cuff** – Wider cuff provides increased ventilation and easy removal

**Supported Gloves** – A liner of some sort is placed on the mold before the mold is dipped into the material. This liner makes the glove more comfortable and stronger.

**Unsupported Gloves** – Means that the glove mold is dipped directly into the material with no liner between the material and the mold. The advantage of this is increased dexterity.

## Grips, Finishes and Texture terms

**Embossed Finish** – A grooved pattern is imbedded into the unsupported glove to increase grip. Also referred to as a “Textured Finish”

**Grit Finish** – PVC grit is added to the glove. This texture is not as fine as the sand finish.

**Rough Finish** – The largest grain surface designed specifically for gloves where a strong grip is necessary.

**Sand Finish** – A “sandy” polymer is applied to the glove to give it texture

**Smooth Finish** – A smooth surface does not necessarily mean a slick surface. In some cases, a smooth finish has excellent grip for many of the surfaces being handled

**Textured Finish** – See Embossed Finish

## Patterns

**Ambi Style** – Short for “ambidextrous” meaning “either hand” this style is sometimes also known as a “reversible” glove. The glove fits either hand. The main advantage to this glove is that they can double the life of the glove by switching hands after the palms have worn out.

**Clute Cut** – This is one of the patterns that is used on a cut-n-sew glove (material is cut into piece and sewn together to make the glove). A Clute cut glove has a seamless palm with three seams between the fingers all the way down the back of the glove. This pattern can be uncomfortable in thicker fabrics and leather.

**Fourchette Pattern** – This is the optimum pattern for a glove but difficult to sew and therefore most expensive. It has no seams either in the palm or on the back of the glove and includes gussets between the fingers. This means that there are no seams in any of the work areas.

**Gunn Style** – This is another pattern that is used in a cut-n-sew glove. In this pattern there is a seamless back and a seam in the palm of the glove across the base of the two middle fingers. This places the “gunn” seam in a natural crease of the hand so that it is not uncomfortable. It is preferred for a heavy-duty glove.

**Seam Thumb** – This style has a leather strap added to the inside of the seams to add strength.

**Straight Thumb** – Designed for work that is done “Closed –fisted”. The seams on the glove are away from the gripping surface.

**Wing Thumb** – Designed for work that is done “Open-handed”. The seams on the glove are away from the surface when the hand is open.