

# HAND PROTECTION



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- Electrical Gloves
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- Heat Resistant Gloves
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- Disposable Gloves

## Technical Data Information

Gloves protect the user's hands from many types of hazard. These items may protect from occupational hazards as well as recreational risks where the hands are heavily involved in the completion of a task. The most common reasons to wear safety gloves is to provide the following: heat/chill resistance, puncture and cut resistance, static control, chemical resistance, flame retardation, anti-contamination, enhanced grip, water proofing, and hand visibility. The statistics for 2013 of compensation Fund or Social Security found that the number of workers who were injured at work is as high as 43,000 of which 2,500 lost their hands. These days, there are so many task-specific glove models, that any objections to wearing them can be overcome through an assessment that matches workplace needs with the appropriate hand protection product.

### Safety Glove Selection

Gloves feature individual sheaths for each digit to allow articulation and sensation, though these capabilities vary. Gloves are either nominally sized or dimensioned universally, but good fitting gloves provide the best finger dexterity, safety and comfort. Many gloves extend their coverage beyond the wrist; cuff styles vary according to the glove's purpose.

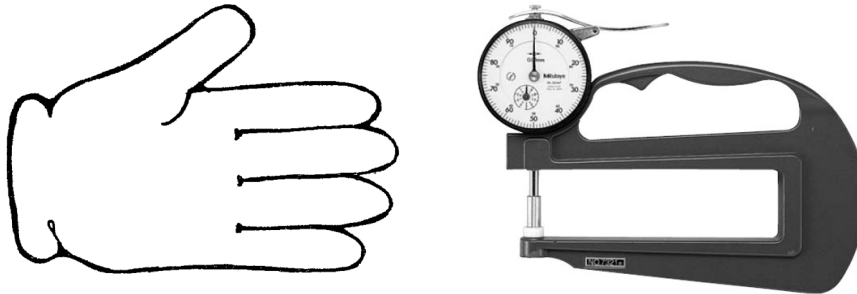
### Types of Safety Gloves

|   |  |  |
|---|--|--|
| <p><b>1 Disposable Gloves</b> will act as a excellent barrier, e.g. to prevent the transmission of organisms. Disposable gloves are thin, generally 4-8 mil (0.004-0.008 inch). This allows the user to retain good touch sensitivity and dexterity but they have poor duration. Disposable gloves are available in both Latex and Latex-Free types e.g. Nitrile, Vinyl, Polyethylene or plastic. Disposable Gloves are used primarily in the following applications: food handling, salons, electronic assembly, laboratory work, packaging, automotive, janitorial, general pharmaceutical and home use.</p>  | <p><b>2 Reusable Gloves</b> are 18-28 mils thick. They offer greater protection than disposables against abrasion and other physical hazards. Reusable gloves are made with the same material as disposable gloves. Reusable gloves are used in automotive and petrochemical industries.</p>   |  |
| <p><b>3 Leather</b> gloves are used to protect against injuries from sparks or scraping against rough surfaces. They are also used in combination with an insulated liner when working with electricity. These should be used when welding, as the leather can resist sparks and moderate heat. The risk of cuts and abrasions can also be minimized by wearing leather gloves.</p>    | <p><b>4 Aluminized Gloves</b> made of aluminized synthetic materials are designed to insulate hands from intense heat. These gloves are most commonly used by persons working with molten materials. These gloves are recommended for welding, furnace and foundry work, as they provide reflective and insulating protection.</p>    | <p><b>5 Stainless Steel Mesh Gloves</b> are used to protect hands form slashing cuts and scratches that can occur during meat and poultry processing. They are used most commonly by persons working with cutting tools or other sharp instruments. Superior stainless-steel gloves in chain mail are from anti-oxidising.</p>  |
| <p><b>6 HPPE Gloves (High Performance Polyethylene)</b> help glove manufacturers create cut-resistant hand protection that is strong, tough, comfortable, flexible, cool, and light.</p>   | <p><b>7 Fabric Gloves</b> made of cotton or fabric blends and generally used in different environments (depends on the thickness). Fabric gloves help to protect against dust, abrasion, scratch or offer better grip when handling slippery objects. They also help insulate hands from mild heat or cold. They can keep hands clean and protect against abrasions, but may not be strong enough to handle work with rough, sharp materials or where chemical protection is required.</p>  |  |

## General Information

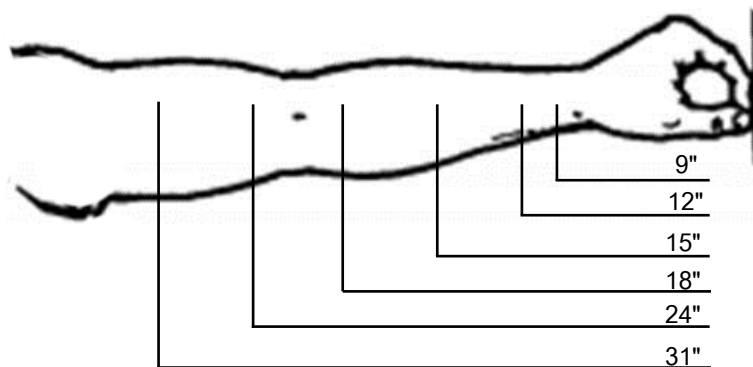
### 1. Thickness

- Glove thickness is stated in either gauge or Mil: e.g. a 1-gauge glove equals 1 mil or 0.001 inches.
- Thinner, lighter gloves offer better touch sensitivity and flexibility.



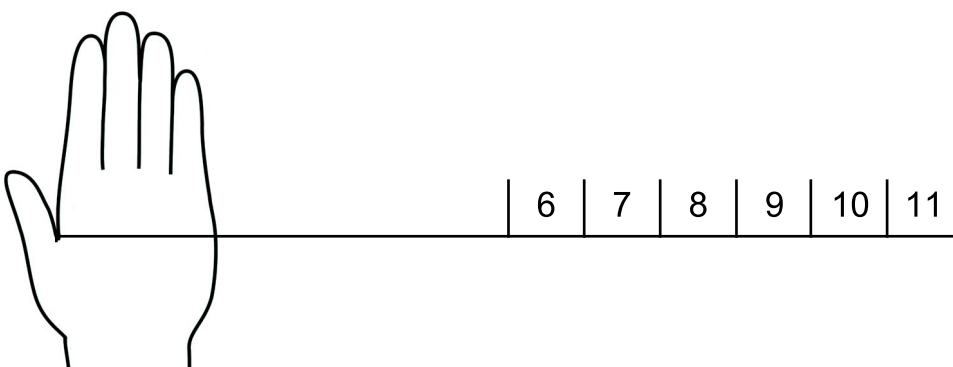
### 2. Length

- Assessing the risk should define the length of glove needed.
- Protect hands and wrist: length 9-14 inches or 23-26 cm.
- Protect arm and elbow: length 14-18 inches or 36-46 cm.
- Protect whole arm - shoulder: length 31 inches or 76 cm.



### 3. Size

- You must first determine out your hand size.
- If the size is too small, it causes undue hand fatigue, rashes, perspiration and may tear your gloves
- Gloves that are too large are uncomfortable, interfere with the precision of grip and can snag.
- Measuring hands: Hand Circumference



#### GLOVE SIZE GUIDE

|         |               |
|---------|---------------|
| 10 - 11 | = Extra Large |
| 9 - 10  | = Large       |
| 8 - 9   | = Medium      |
| 7 - 8   | = Small       |
| 6 - 7   | = Extra Small |



Hand  
Protection

### Before use

- Choosing the right glove for your application is critical for ensuring proper protection.
- Study well the instructions of glove use including, washing, storage, disposal and limitations of use etc.
- Selecting the suitable size and length for optimum level of protection.
- Inspect the gloves before handling hazardous materials or use. Signs of wear may include holes, cracks, tears, and discoloration of the glove material. At the same time, some of operations require inspection during use e.g., electrical resistance.

### Glove Selection Guilds

| Work   | Danger level  | Materials   |
|--|---|---|
| Mechanical Risks                                 | <ul style="list-style-type: none"> <li>• High</li> <li>• Low</li> </ul>                   | <ul style="list-style-type: none"> <li>• Extra thick, Leather</li> <li>• Rubber, plastic, leather, synthetic, nylon, cotton</li> </ul>  |
| Cut Resistance                                   | <ul style="list-style-type: none"> <li>• High</li> <li>• Medium</li> <li>• Low</li> </ul> | <ul style="list-style-type: none"> <li>• Special gloves HPPE.</li> <li>• Leather, Thick cotton, seamless</li> <li>• Thin gloves, synthetic leather, nylon and cotton</li> </ul> |
| Chemical and micro organisms                     | <ul style="list-style-type: none"> <li>• Depends on ACGIH standard</li> </ul>             | <ul style="list-style-type: none"> <li>• Nitrile, PVC or Neoprene etc.</li> </ul>   |
| Cold: Thermal Hazards                            |   | <ul style="list-style-type: none"> <li>• Special cryo gloves</li> </ul>   |
| Electricity                                      |   | <ul style="list-style-type: none"> <li>• Rubber tested to EN 60903 plus leather over gloves</li> </ul>  |
| Hygiene  |   | <ul style="list-style-type: none"> <li>• Fine polymers, polyester or nylon fabric</li> </ul>  |
| Ionising radiation and radioactive contamination |   | <ul style="list-style-type: none"> <li>• Lead coated on rubber, plastic or leather</li> </ul>   |
| Heat: Thermal Hazards                            |   | <ul style="list-style-type: none"> <li>• Special gloves coated with insulating metrial</li> </ul>   |
| General  |   | <ul style="list-style-type: none"> <li>• Fabric, leather</li> </ul>   |



### Materials

#### Mechanical and Chemical Properties

|                                 | Natural latex | Neoprene | Nitrile | PVC   |
|---------------------------------|---------------|----------|---------|-------|
| Flex resistance                 | ★★★★★         | ★★★★★    | ★★★★    | ★★★★  |
| Abrasion resistance             | ★★★★          | ★★★★     | ★★★★★   | ★★★★★ |
| Cut resistance                  | ★★★★★         | ★★★★     | ★★★★★   | ★★★★  |
| Tear resistance                 | ★★★★★         | ★★★★     | ★★★★    | ★★★★  |
| Puncture resistance             | ★★★★          | ★★★★     | ★★★★★   | ★★★★  |
| Acid resistance                 | ★★★★★         | ★★★★★    | ★★★★★   | ★★★★★ |
| Base resistance                 | ★★★★★         | ★★★★★    | ★★★★★   | ★★★★★ |
| Oil or grease resistance        | ★★            | ★★★★     | ★★★★★   | ★★★★★ |
| Hydrocarbons resistance         | ★★            | ★★       | ★★★★    | ★★    |
| Aromatic Solvent resistance     | ★★★★          | ★★★★     | ★★      | ★★    |
| Chlorinated solvents resistance | ★★            | ★★★★     | ★★★★    | ★★    |
| Keronic solvents resistance     | ★★            | ★★★★     | ★★★★    | ★★    |

Chemical Resistance Table

| Acetaldehyde (acetic aldehyde)  | +  | +  | -  |    |
|---------------------------------|----|----|----|----|
| Acetaldehyde (acetic aldehyde)  | ++ | ++ | =  | ++ |
| Acetic acid, glacial            | +  | ++ | =  | =  |
| Acetone                         | =  | =  | -  | -  |
| Alcoholic beverages             | ++ | ++ | ++ | ++ |
| Ammonium acetate                | ++ | ++ | ++ | ++ |
| Ammonium carbonate              | ++ | ++ | ++ | ++ |
| Ammonium chloride               | ++ | ++ | ++ | ++ |
| Ammonium concentrated           | ++ | ++ | +  | ++ |
| Ammonium nitrate                | ++ | ++ | ++ | ++ |
| Amylic alcohol                  | =  | +  | +  | =  |
| Aniline                         | =  | ++ | -  | =  |
| Animal fats                     | =  | ++ | ++ | +  |
| Asphalt                         | -  | =  | ++ | =  |
| Beet                            | ++ | ++ | ++ | ++ |
| Benzaldehyde (benzoic aldehyde) | -  | =  | =  | -  |
| Benzene                         | -  | -  | =  | -  |
| Benzyl alcohol                  | =  | +  | =  | +  |
| Butyl acetate                   | -  | +  | +  | -  |
| Calcium chloride                | ++ | ++ | ++ | ++ |
| Calcium hydroxide               | ++ | ++ | ++ | ++ |
| Calcium tetrachloride           | -  | =  | +  | =  |
| Castor oil                      | -  | ++ | ++ | =  |
| Chlorine                        | =  | ++ | ++ | =  |
| Chloroacetone                   | ++ | ++ | -  | -  |
| Chloroform                      | -  | -  | =  | -  |
| Chromic acid                    | =  | +  | =  | +  |
| Citric acid                     | ++ | ++ | ++ | ++ |
| Creosote                        | =  | ++ | ++ | +  |
| Cresol                          | +  | ++ | ++ | +  |
| Cutting oil                     | -  | ++ | ++ | +  |
| Ethylaniline                    | =  | ++ | ++ |    |
| Ethylene glycol                 | ++ | ++ | ++ | ++ |
| Fertiliser                      | ++ | ++ | ++ | ++ |
| Fish and shellfish              | =  | ++ | ++ |    |
| Fixing agents                   | ++ | ++ | ++ | ++ |
| Fluorides                       | =  | ++ | ++ | =  |
| Formaldehyde 30 %               | ++ | ++ | ++ | ++ |
| Formic acid 90 %                | +  | ++ | =  | ++ |
| Fuels                           | -  | =  | ++ |    |
| Furaldehyde                     | +  | ++ | -  | -  |
| Gas oil                         | -  | +  | ++ | +  |
| Glycerine                       | ++ | ++ | ++ | ++ |
| Hexane                          | -  | +  | ++ | =  |
| Household detergents            | ++ | ++ | +  | ++ |
| Hydraulic fluid (petrol)        | -  | =  | ++ | =  |
| Hydraulic fluid (esters)        | +  | ++ | ++ |    |
| Hydrochloric acid 30% and 5     | ++ | ++ | ++ | ++ |
| Hydrochloric acid 30%           | +  | ++ | +  | ++ |
| Hydrogen peroxide               |    | ++ | ++ | ++ |
| Isobutanol (isobutylic alcohol) |    | ++ | ++ | ++ |
| Isobutylcetone                  | ++ | +  | -  |    |
| Kerosene                        | -  | +  | ++ | +  |
| Lactic acid 85 %                |    | ++ | +  | ++ |
| Lard oil                        |    | ++ | ++ | =  |
| Linseed oil                     |    | ++ | ++ | =  |

| Lubricating oil                        | -  | =  | ++ | =  |
|--|----|----|----|----|
| Magnesium oxide                        | ++ | ++ | ++ | ++ |
| Methanol (methyl alcohol)              | =  | +  | ++ | +  |
| 2-Methoxyethanol                       | =  | ++ | ++ | +  |
| Methyl ethly ketone                    | +  | =  | -  | -  |
| Methyl isobutyl ketone                 | ++ | =  | -  | -  |
| Methylamine                            | +  | ++ | ++ | ++ |
| Methylaniline                          | =  | =  | ++ | ++ |
| Methylene chloride                     | =  | =  | =  | -  |
| Milk and dairy products                | +  | ++ | ++ | -  |
| Mineral fats                           | -  | =  | ++ | -  |
| Niteic acid 20 %                       | +  | ++ | +  | ++ |
| Nitrobenzene                           | -  | =  | -  | -  |
| Olive oil                              | -  | ++ | ++ | -  |
| Oxalic acid                            | ++ | ++ | ++ | ++ |
| Paraffin oil                           | -  | =  | ++ | -  |
| Peanut oil                             | -  | ++ | ++ | =  |
| Perchlorethylene                       | -  | =  | ++ | =  |
| Perfumes and essences                  | ++ | ++ | ++ | ++ |
| Petro                                  | -  | +  | ++ | =  |
| Petroleum ether                        | -  | =  | ++ | -  |
| Petroleum products                     | -  | =  | +  | =  |
| Phenol (phenic alcohol)                | =  | +  | +  | +  |
| Phosphoric acid 75 %                   | ++ | ++ | ++ | ++ |
| Polyester resins                       | -  | =  | +  | =  |
| Potassium bicarbonate                  | ++ | ++ | ++ | ++ |
| Potassium phosphate                    | ++ | ++ | ++ | ++ |
| Potassium sulphate                     | ++ | ++ | ++ | ++ |
| Poultry                                | =  | ++ | ++ | -  |
| Setting agents                         | ++ | ++ | ++ | ++ |
| Shampoos                               | ++ | ++ | ++ | ++ |
| Silicate                               | ++ | ++ | ++ | ++ |
| Sodium bicarbonate                     | ++ | ++ | ++ | ++ |
| Sodium hypochloride                    | ++ | ++ | ++ | ++ |
| Sodium nitrate                         | ++ | ++ | ++ | ++ |
| Sodium phosphates                      | ++ | ++ | ++ | ++ |
| Sodium sulphate                        | ++ | ++ | ++ | ++ |
| Soya bean oil                          | -  | ++ | ++ | =  |
| Styrene                                | -  | =  | =  | -  |
| Sulphites, bi-sulphites, hyposulphites | ++ | ++ | ++ | ++ |
| Sulphuric acid concentrated            | =  | +  | =  | +  |
| Sulphuric acid diluted (battery)       | ++ | ++ | ++ | ++ |
| THF = Tetrahydrofurane                 | =  | =  | -  | -  |
| Toluene                                | -  | =  | +  | =  |
| Vinyl acetate                          | ++ | ++ | ++ | +  |
| Washing Powders                        | -  | =  | =  | -  |
| Water paint                            | ++ | ++ | ++ | ++ |
| WeedKillers                            | +  | ++ | ++ | +  |
| Xylene                                 | -  | =  | +  | =  |
| Xylophene                              | -  | =  | +  | =  |
| Zinc sulphate                          | ++ | ++ | ++ | ++ |


Hand  
Protection

This recommendation table shows general protection. Any other specific protection required should be tested under each condition as and when required.

Recommendation: ensure that the glove functions are fit for purpose. The type of glove selected depends on the substances being handled and the type of work being undertaken.

++ Excellent  
= Fair

+ Good  
- Not recommended



### Tips for safe glove use

1

Wash your hands before donning gloves



2

Do not re-use gloves many times.



- Remove you gloves when work is done.
- Do not wear after work.
- Change gloves regularly as and when appropriate.

### Remove glove tips

1

Wash gloves before removing



2

Fold the edge of gloves



3

Pull out the edge of gloves



4

Remove glove without touching the outside surface of hand area (\* don't remove gloves by pulling out at finger areas)



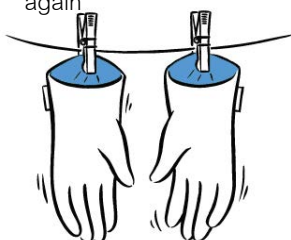
5

Apply moisturizer on hand



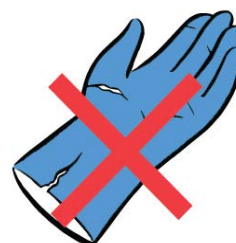
6

Inspect the inside of gloves are really dry before using again



7

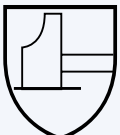
Do not reuse worn or torn gloves



## Pictograms


### EN 388 MECHANICAL PROTECTION (GENERAL WORK)

Protection against mechanical hazards is expressed by a pictogram followed by four numbers and one letter if applicable, (performance levels), each representing test performance against a specific hazard.

| <br>A B C D E | PERFORMANCE LEVELS      |  | 1        | 2        | 3         | 4         | 5         | 6         |
|--|-------------------------|--|----------|----------|-----------|-----------|-----------|-----------|
|  | A. Abrasion resistance  | Based on the number of cycles required to abrade through the sample glove (Unit: cycle)                                      | 100      | 500      | 2000      | 8000      | -         | -         |
|  | B. Cut resistance       | Based on the number of cycles required to cut through the sample at constant speed (Unit: index)                             | 1.2      | 2.5      | 5.0       | 10.0      | 20.0      | -         |
|  | C. Tear resistance      | Based on the amount of force required to tear the sample (Unit: Newton)  | 10       | 25       | 50        | 75        | -         | -         |
|  | D. Puncture resistance  | Based on the amount of force required to pierce the sample with a standard sized point (Unit: Newton)                        | 20       | 60       | 100       | 150       | -         | -         |
|  | E. Blade cut resistance | Based on the load required to be applied to the blade in order to facilitate cut-through in a known distance (Unit: Newton ) | A<br>≥ 2 | B<br>≥ 5 | C<br>≥ 10 | D<br>≥ 15 | E<br>≥ 22 | F<br>≥ 30 |


### EN 407 - HEAT PROTECTION

The nature and degree of protection is shown by a pictogram followed by a series of six performance levels, relating to specific protective qualities. The higher the number, the better the test result. The following is tested :

| <br>A B C D E F | PERFORMANCE LEVELS       |  | 1     | 2     | 3     | 4     |
|--|--------------------------|--|-------|-------|-------|-------|
|  | A. After-burn time       | The length of time is measured for how long the material either glows or burns (Unit : Seconds)  | ≤ 20  | ≤ 10  | ≤ 3   | ≤ 2   |
|  | B. Contact heat          | 15 seconds is the minimum accepted length of time for approval (Unit : Degree °C)  | 100 ° | 250 ° | 350 ° | 500 ° |
|  | C. Convective heat       | The amount of time is measured for the heat from a gas flame(80kw/kvm) to increase the temperature of the glove's inside material by 24 °C (Unit : Seconds)  | ≤ 4   | ≤ 7   | ≤ 10  | ≤ 18  |
|  | D. Radiant heat          | The average time is measured for heat penetration of 2.5 kw/kvm (Unit : Seconds)   | ≤ 5   | ≤ 30  | ≤ 90  | ≤ 150 |
|  | E. Drops of molten metal | The total number of drops of molten metal required to increase the temperature by 40 °C between the inside of the glove and the skin (Unit : Number or drop) | ≥ 5   | ≥ 15  | ≥ 25  | ≥ 35  |
|  | F. Molten metal          | The total number of grams is measured of how much molten metal is required to damage the simulated skin (Unit : Gram)  | 30    | 60    | 120   | 200   |

### EN 374 - CHEMICAL PROTECTION

In many countries there are more than 15,000 different chemicals in use in more than 60,000 products within industry, construction, agriculture etc. Tested and approved chemical gloves are the right solution against many of these chemicals.

| <br>X Y Z | The 'Chemical resistant' glove pictogram must be accompanied by a 3-digit code. This code refers to the code letters of 3 chemicals (from a list of 12 standard defined chemicals) for which a breakthrough time of at least 30 minutes has been obtained. |  | CODE LETTER | CHEMICAL         | CODE LETTER | CHEMICAL             |
|--|--|--|-------------|------------------|-------------|----------------------|
|  |  |  | A           | Methanol         | G           | Diethylamine         |
|  |  |  | B           | Acetone          | H           | Tetrahydrofuran      |
|  |  |  | C           | Acetonitrile     | I           | Ethyl Scetate        |
|  |  |  | D           | Dichloromethane  | J           | n-Heptan             |
|  |  |  | E           | Carbon disulfide | K           | Sodium Hydroxide 40% |
|  |  |  | F           | Toluen           | L           | Sulfuric Acid 96%    |



SPECIFIC CHEMICAL PROTECTION  
EN 374

This Standard Specified the capability of gloves to protect the user against chemicals and/or micro-organisms.



MICRO - ORGANISMS  
EN 374-2

This Standard Specified the capability of gloves to protect the user against chemicals and/or micro-organisms.



GENERAL CHEMICAL PROTECTION  
EN 455

This Standard Specified the capability of gloves to protect the user against chemicals and/or micro-organisms.



RADIOACTIVE CONTAMINATION  
EN 421

This standard applies to gloves to protect from ionising Radiation and Radioactive Contamination.

## Cut Resistant Gloves

## Cut Resistant Gloves Specification

**Gloves** Made with a High Performance Polyethylene (HPPE). This glove offers various levels of cut-resistance.

**Standard**

Exceeds  
EN388 level 5

EN388



a b c d e




**Palm** PU coating on palm side of the glove gives / slip resistance and better grip e.g. for handling windows, glass, metal processing operations, civil engineering, cleaning work and automotive.

**GLVR0037**

Cut Resistant  
Gloves  
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## Cut Resistant Standard

| Mechanical Hazards EN388  a b c d | Testing Standard | Pictogram Example<br>PANGOLIN |
|--|------------------|-------------------------------|
| a) Abrasion resistance   | 0 - 4            | 4                             |
| b) Cut resistance  | 0 - 5            | 5                             |
| c) Tear resistance   | 0 - 4            | 4                             |
| d) Anti Stab or puncture resistance  | 0 - 4            | 3                             |
| e) Blade cut resistance  | A-F              | C                             |



EN388



## PU Coated Cut Resistant Gloves Level 4

4 4 4 3 C

| Code         | Description                        | Size | Color | UOM    | Package |
|--------------|------------------------------------|------|-------|--------|---------|
| GLVR0036ZZZM | Cut-Resistant/PU Pangolin Level 3+ | M    | Grey  | 1 pair | 1 pair  |
| GLVR0036ZZZL | Cut-Resistant/PU Pangolin Level 3+ | L    | Grey  | 1 pair | 1 pair  |

- A High Performance Polyethylene (HPPE). that offers, maximum strength combined with minimum weight. HPPE is extremely durable and resistant to moisture, UV light and chemicals.
- Performance characteristics are not only affected by a material's weight, but also by the coating applied to the outside surface. Coated gloves enhance grip, especially on slippery surfaces.
- Good ventilation, exceptional dexterity and comfort along with superior washability (no fabric softener or chemicals)
- Cut-resistant gloves are designed to protect hands from direct contact with sharp edges such as glass, metal, ceramics and other materials.

EN388



## PU Coated Cut Resistant Gloves Level 5

4 5 4 3 C

| Code         | Description                        | Size | Color | UOM    | Package |
|--------------|------------------------------------|------|-------|--------|---------|
| GLVR0037ZZZS | Cut-Resistant/PU Pangolin Level 5+ | S    | Grey  | 1 pair | 1 pair  |
| GLVR0037ZZZM | Cut-Resistant/PU Pangolin Level 5+ | M    | Grey  | 1 pair | 1 pair  |
| GLVR0037ZZZL | Cut-Resistant/PU Pangolin Level 5+ | L    | Grey  | 1 pair | 1 pair  |
| GLVR0037ZZZX | Cut-Resistant/PU Pangolin Level 5+ | XL   | Grey  | 1 pair | 1 pair  |





EN388



3 5 4 X

### Non Coated Cut Resistant Gloves level 5

- A High Performance Polyethylene offers, maximum strength combined with minimum weight. HPPE is extremely durable and resistant to moisture, UV light and chemicals.
- CE EN388 3 5 4 X
- Good ventilation, exceptional dexterity and comfort along with superior washability (no fabric softener or chemicals)
- Protection hands from direct contact with sharp edges such as glass, metal, ceramics and other materials.

| Code          | Description                         | Size | Color | UOM    | Package |
|---------------|-------------------------------------|------|-------|--------|---------|
| GLVR0047ZZZM  | Cut-Resistant Pangolin Level 5 #M+  | M    | Grey  | 1 pair | 1 pair  |
| GLVR0047ZZZL  | Cut-Resistant Pangolin Level 5 #L+  | L    | Grey  | 1 pair | 1 pair  |
| GLVR0047ZZZXL | Cut-Resistant Pangolin Level 5 #XL+ | XL   | Grey  | 1 pair | 1 pair  |



EN388



4 5 4 X

### Non Coated Long Cut Resistant Gloves Level 5

- A High Performance Polyethylene offers, maximum strength combined with minimum weight. HPPE is extremely durable and resistant to moisture, UV light and chemicals.
- CE EN388 3 5 4 X
- Good ventilation, exceptional dexterity and comfort along with superior washability (no fabric softener or chemicals)
- Longer gloves offer additional forearm protection.
- Protection hands from direct contact with sharp edges such as glass, metal, ceramics and other materials.

| Code          | Description                             | Size | Color | UOM    | Package |
|---------------|---|------|-------|--------|---------|
| GLVR0049ZZZL  | CUT5 Extra Long Cuff Uncoated Glove L:  | L    | Grey  | 1 pair | 1 pair  |
| GLVR0049ZZZXL | CUT5 Extra Long Cuff Uncoated Glove XL: | XL   | Grey  | 1 pair | 1 pair  |



Hand Protection



GLVT0014ZZZZZ

GLVT0015ZZZZZ

EN388



2 3 4 X

### Kevlar Anti-Cut Gloves

- Kevlar material.
- 9 inches long
- Excellent cut & tear resistance
- Heat resistant

| Code          | Description                                 | Size  | Color  | UOM    | Package |
|---------------|---|-------|--------|--------|---------|
| GLVT0014ZZZZZ | Kevlar Anti-Cut+                            | 9 in. | Yellow | 1 pair | 1 pair  |
| GLVT0015ZZZZZ | Kevlar Anti-Cut PVC dot coatingg #AF146-512 | 9 in. | Yellow | 1 pair | 1 pair  |

PVC dot Coating offers superior grip



### Stainless Cut Resistant Gloves

- Specialist gloves for excellent cut protection (eg. Food processing)
- Manufactured from high quality stainless steel mesh.
- Adjustable fit

| Code          | Description                | Size | Color  | UOM    | Package |
|---------------|----------------------------|------|--------|--------|---------|
| GLVT0004ZZZZS | Stainless Cut Resistant #S | S    | Silver | 1 side | 1 side  |
| GLVT0004ZZZZM | Stainless Cut Resistant #M | M    | Silver | 1 side | 1 side  |
| GLVT0004ZZZZL | Stainless Cut Resistant #L | L    | Silver | 1 side | 1 side  |

## Hand Protection



EN388



3 5 4 3

### Latex Coated Cut Resistant Gloves

- Kevlar fabric, good ventilation
- Cut resistant to level 5
- Latex coated on palm and thumb provides excellent grip and dexterity
- Heat resistant up to 200°C

| Code          | Description             | Size | Color        | UOM    | Package |
|---------------|-------------------------|------|--------------|--------|---------|
| GLVR0025ZZ080 | Cut-Resistant #305 # 8+ | 8    | Yellow/ Blue | 1 pair | 1 pair  |
| GLVR0025ZZ090 | Cut-Resistant#305 # 9+  | 9    | Yellow/ Blue | 1 pair | 1 pair  |



## Electrical Gloves

### Electricians Gloves (Honeywell)

EN 60 903-2003  
CEI 903-2002



- Natural rubber, soft touch and flexible
- Thickness 0.5-3.4 mm, length 36-41 cm
- Protects against cold or heat
- Acid, oil, ozone and freeze resistant
- Categories AZC

| CLASS | MAXIMUM USE<br>AC VOLTAGE<br>(V EFF) | PROOF TEST<br>AC VOLTAGE<br>(V EFF) |
|-------|--------------------------------------|-------------------------------------|
| 00    | 500                                  | 2,500                               |
| 0     | 1,000                                | 5,000                               |
| 1     | 7,500                                | 10,000                              |
| 2     | 17,000                               | 20,000                              |
| 3     | 26,500                               | 30,000                              |
| 4     | 36,000                               | 40,000                              |

| Code         | Description                         | UOM    | Package |
|--------------|-------------------------------------|--------|---------|
| HW-ELEC2500  | Electrosoft 2500V (2091903-09) 00G+ | 1 pair | 1 pair  |
| HW-ELEC5000  | Electrosoft 5000V (2091907-09) 0G+  | 1 pair | 1 pair  |
| HW-ELEC10000 | Electrosoft 10000V (2091912-09) 1G  | 1 pair | 1 pair  |
| HW-ELEC20000 | Electrosoft 20000V (2091921-09) 2G+ | 1 pair | 1 pair  |
| HW-ELEC30000 | Electrosoft 30000V (2091931-09) 3G+ | 1 pair | 1 pair  |
| HW-ELEC40000 | Electrosoft 40000V (2091941-10) 4G  | 1 pair | 1 pair  |

### Leather Gloves For High Voltage Rubber Insulating Gloves

- High quality leather, durable and soft
- Length 14 inches x thick 1.3 mm
- Wear on top of electricians rubber gloves to prevent tear and wearing
- Extends shelf life of electricians gloves



| Code          | Description   | Color | UOM    | Package |
|---------------|---|-------|--------|---------|
| GLVL0004ZZZZZ | Leather Gloves for high voltage rubber insulating gloves+ | White | 1 pair | 1 pair  |

## General Purpose Gloves



EN388



## Latex Palm Coated Knitted Poly/Cotton Gloves 2 2 4 3

- Polyester material, Seamless
- CE EN388:2003
- Rubber coated palm provides excellent grip and dexterity
- Suitable for maintenance and general assembly work complement

| Code        | Description                                      | Size | Color        | Color  | Package |
|-------------|--|------|--------------|--------|---------|
| GLVC-PLLT/M | Latex Palm Coated Knitted Poly/Cotton Gloves #M+ | M    | Yellow-Green | 1 pair | 1 pair  |
| GLVC-PLLT/L | Latex Palm Coated Knitted Poly/Cotton Gloves #L+ | L    | Yellow-Green | 1 pair | 1 pair  |



EN388



4 1 3 1

## PU Palm Coated Polyester Gloves

- Polyester material, Seamless
- CE EN388:2003
- PU coated palm provides excellent grip and dexterity
- Suitable for maintenance, assembly work and electronics

| Code        | Description                         | Color | UOM    | Package |
|-------------|-------------------------------------|-------|--------|---------|
| GLVC-PLPU/S | PU Palm Coated Polyester Gloves #S+ | White | 1 pair | 1 pair  |
| GLVC-PLPU/M | PU Palm Coated Polyester Gloves #M+ | White | 1 pair | 1 pair  |
| GLVC-PLPU/L | PU Palm Coated Polyester Gloves #L+ | White | 1 pair | 1 pair  |



EN388

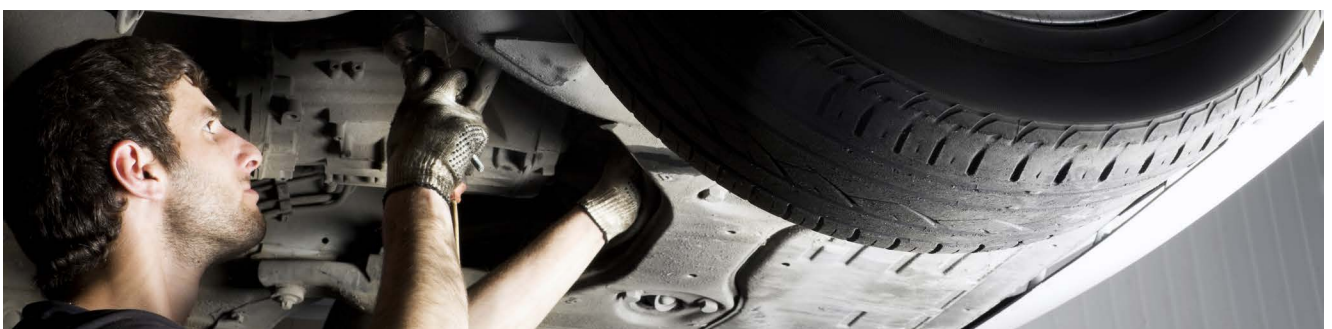


4 1 3 1

## Nitrile Foam Palm Coated 100% Nylon Gloves

- Nylon material, Seamless
- CE EN388:2003
- Nitrile coated palm provides excellent grip and dexterity
- Suitable for maintenance, assembly work and electronics

| Code         | Description                                | Color       | UOM    | Package |
|--------------|--|-------------|--------|---------|
| GLVC-NLNF/M  | Nitrile Foam Palm Coated Nylon Gloves #M+  | White/ Grey | 1 pair | 1 pair  |
| GLVC-NLNF/L  | Nitrile Foam Palm Coated Nylon Gloves #L+  | White/ Grey | 1 pair | 1 pair  |
| GLVC-NLNF/XL | Nitrile Foam Palm Coated Nylon Gloves #XL+ | White/ Grey | 1 pair | 1 pair  |







### Cotton Gloves

- Cotton material
- Soft and durable
- Good ventilation

| Code          | Description          | Color | UOM    | Package       |
|---------------|----------------------|-------|--------|---------------|
| GLVC0004ZZZZZ | Cotton Gloves 400 g+ | White | 1 pair | 12 pairs/pack |
| GLVC0005ZZZZZ | Cotton Gloves 500 g+ | White | 1 pair | 12 pairs/pack |
| GLVC0006ZZZZZ | Cotton Gloves 600 g+ | White | 1 pair | 12 pairs/pack |
| GLVC0007ZZZZZ | Cotton Gloves 700 g+ | White | 1 pair | 12 pairs/pack |



### All Purpose Plastic Gloves (Pack)

- HDPE plastic material
- Protects against dirt & dust etc.
- Ambidextrous, fits either hand

| Code          | Description                 | Color       | UOM    | Package        |
|---------------|-----------------------------|-------------|--------|----------------|
| GLVP0003ZZZZZ | All purpose Plastic Gloves+ | Transparent | 1 pack | 100 pairs/pack |



### Cotton Gloves with PVC Dot

- Cotton material, soft and comfortable
- Red polka dot coating on palm gives better grip.
- Good ventilation
- Length 9 inches
- Elasticated cuff

| Code          | Description                            | Color               | UOM    | Package |
|---------------|--|---------------------|--------|---------|
| GLVC0001ZZZZZ | Cotton Gloves with PVC Dot #92802 / R: | White with red dots | 1 pair | 1 pair  |



### Cotton Gloves with Folded Sleeve

- Cotton material, fabric touch, soft
- Good ventilation
- Folded end prevents irritation

| Code          | Description                       | Color | UOM    | Package |
|---------------|-----------------------------------|-------|--------|---------|
| GLVC0008ZZZZZ | Cotton Gloves with Folded Sleeve+ | White | 1 pair | 1 pair  |



### Nylon Gloves with Folded Sleeve

- Nylon material, fabric touch
- Length 8.5 inches
- Comfortable and dexterous
- Folded end prevents irritation

| Code          | Description                      | Color | UOM    | Package |
|---------------|----------------------------------|-------|--------|---------|
| GLVC0009ZZZZZ | Nylon Gloves with Folded Sleeve: | White | 1 pair | 1 pair  |



### TC Gloves

- TC synthetic fabric allows added durability
- No loose ends
- Length 8.5 inches

| Code          | Description | Color | UOM    | Package |
|---------------|-------------|-------|--------|---------|
| GLVC0010ZZZZZ | TC Gloves:  | White | 1 pair | 1 pair  |

## Heat Resistant Gloves



## Kevlar/ Aluminized Heat Resistant Gloves 500 °C

- Kevlar fabric knitting, fabric touch, good ventilation
- Cut resistant
- Manufactured from aluminized fabric and designed to insulate hands from temperatures up to 500°C (900°F)
- Commonly used in foundries etc.

| Code          | Description                   | Color  | UOM    | Package |
|---------------|-------------------------------|--------|--------|---------|
| GLVT0001ZZZZZ | Heat Resistant Gloves 500°C + | Silver | 1 pair | 1 pair  |

## Leather/ Aluminized Heat resistant gloves 300 °C

- Kevlar fabric knitting, fabric touch, good ventilation
- Cut resistant
- Manufactured from aluminized fabric and designed to insulate hands from temperatures up to 300°C (550°F)

| Code          | Description                   | Color          | UOM    | Package |
|---------------|-------------------------------|----------------|--------|---------|
| GLVT0002ZZZZZ | Heat Resistant Gloves 300°C + | Silver/ Yellow | 1 pair | 1 pair  |



## Leather/ Alumized Heat resistant #HG-1250

- High quality leather on palm offering additional durability
- Resistant to abrasion
- Manufactured from aluminized fabric and designed to insulate hands from temperatures up to 650°C (1250°F)

| Code          | Description                    | Color        | UOM    | Package |
|---------------|--------------------------------|--------------|--------|---------|
| GLVT0003ZZZZZ | Heat Resistant Gloves #HG-1250 | Silver/ Grey | 1 pair | 1 pair  |

## Aluminized Gloves #HG-AL2

- Abrasion resistant
- Manufactured from aluminized fabric and designed to insulate hands from temperatures up to 800°C (1500°F)

| Code          | Description                   | Color  | UOM    | Package |
|---------------|-------------------------------|--------|--------|---------|
| GLVT0005ZZZZZ | Heat Resistant Gloves #HG-AL2 | Silver | 1 pair | 1 pair  |



## Silicon Heat Resistant Gloves #H-200

- Manufactured from Silicone c/w heat resistant insulated inner
- Excellent dexterity and comfort
- Length 27 cm.
- Also prevents ingress of liquids
- Heat resistant up to 200°C (350°F)

| Code          | Description                  | Color | UOM    | Package |
|---------------|------------------------------|-------|--------|---------|
| GLVT0007ZZZZZ | Heat Resistant Gloves #H-200 | White | 1 pair | 1 pair  |





## Hand Protection



### Heat Insulating Resistant Leather Gloves #LG-HG 1413

- High quality cow leather material
- Comfortable with limited cut resistance
- Length 14 inches
- Manufactured from aluminized fabric and designed to protect hands from heat up to 300°F
- Also protects against heat from arc flash

| Code          | Description                                   | Color | UOM    | Package |
|---------------|---|-------|--------|---------|
| GLVL0003ZZZZZ | Heat insulating resistant Gloves #LG-HG 1413+ | Brown | 1 pair | 1 pair  |



### Heat Resistant Leather Gloves #LG-012

- High quality cow leather material
- Comfortable with limited cut resistance
- Length 16 inches
- Manufactured from aluminized fabric and designed to protect hands from heat up to 150°C (300°F)
- Also protects against heat from arc flash

| Code          | Description                            | Color | UOM    | Package |
|---------------|--|-------|--------|---------|
| GLVL0005ZZZZZ | Heat resistant leather Gloves #LG-012+ | Grey  | 1 pair | 1 pair  |

## Welding Gloves



### Argon Welding Leather Gloves #125Y

- High quality leather material
- Comfortable & cut resistant
- Heat resistant, especially from argon welding

| Code          | Description                             | Color  | UOM    | Package |
|---------------|---|--------|--------|---------|
| GLVL0001ZZ100 | Argon Welding Leather Gloves #125Y #10+ | Yellow | 1 pair | 1 pair  |



### Argon Welding Leather Gloves

- Genuine Leather
- Open cuff for comfort
- Soft and durable
- Heat resistant protects against are flash from argon welding etc.

| Code          | Description                   | Color | UOM    | Package |
|---------------|-------------------------------|-------|--------|---------|
| GLVL0025ZZZZZ | Argon Welding Leather Gloves+ | Grey  | 1 pair | 1 pair  |



### Argon Welding Leather Gloves #LG-2FB

- High quality leather material
- Comfortable and cut resistant
- Heat resistant, especially from argon welding

| Code          | Description                           | Color | UOM    | Package |
|---------------|---------------------------------------|-------|--------|---------|
| GLVL0002ZZZZZ | Argon Welding Leather Gloves #LG-2FB+ | Grey  | 1 pair | 1 pair  |



### Chamois Leather Gloves

- Soft Chamois leather material
- Designed for second responders in firefighting and heat protection
- Length 30 cm.

| Code          | Description              | Color | UOM    | Package |
|---------------|--------------------------|-------|--------|---------|
| GLVL0007ZZZZZ | Chamois Leather Gloves : | Black | 1 pair | 1 pair  |



### Short Sleeve Cow Split Leather Gloves

- High quality split leather material, soft and durable
- Length 10 inches
- Limited heat resistance

| Code         | Description           | Color | UOM    | Package |
|--------------|-----------------------|-------|--------|---------|
| GLVL0020ZZZZ | Split Leather Gloves+ | Grey  | 1 pair | 1 pair  |



### Long Sleeve Cow Split Leather Gloves

- High quality split leather material, soft and durable
- Length 13.5 inches
- Limited heat resistance

| Code         | Description                 | Color | UOM    | Package |
|--------------|-----------------------------|-------|--------|---------|
| GLVL0021ZZZZ | Long Sleeve Leather Gloves+ | Grey  | 1 pair | 1 pair  |



### Shoulder Length Sleeve Cow Split Leather Gloves

- High quality split leather material, soft and durable
- Length 22 inches
- Limited heat resistance

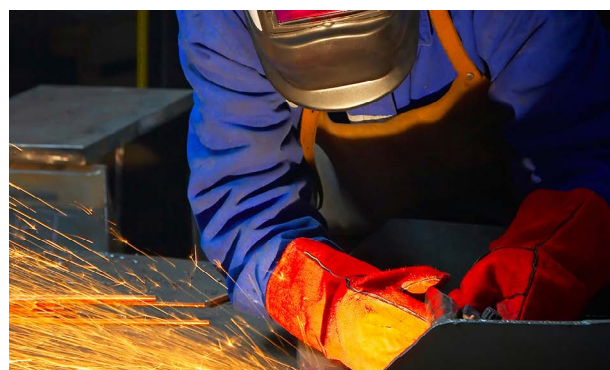
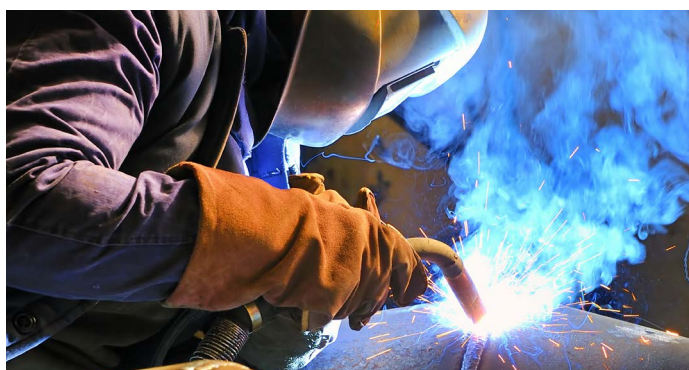
| Code         | Description                     | Color | UOM    | Package |
|--------------|---------------------------------|-------|--------|---------|
| GLVL0022ZZZZ | Shoulder length Leather Gloves+ | Grey  | 1 pair | 1 pair  |



### Fully Lined Cow Split Leather Gloves

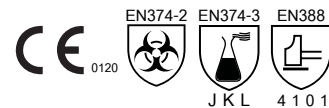
- High quality split leather material, soft and durable
- Length 14 inches
- Limited heat resistance

| Code         | Description                  | Color | UOM    | Package |
|--------------|------------------------------|-------|--------|---------|
| GLVL0024ZZZZ | Fully Lining Leather Gloves+ | Grey  | 1 pair | 1 pair  |



## Hand Protection

### Chemical Resistant Gloves

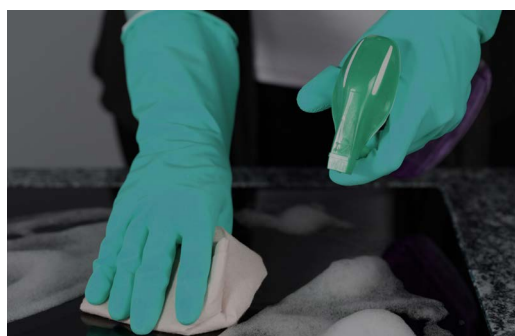


#### High Performance Nitrile

- Nitrile synthetic rubber, soft, durable and comfortable
- Prevents penetration of oil and chemicals
- GLVR0034: thick 15mil and GLVR0035: thick 18mil x 33 cm.
- General use

#### GLVR0034 thick 15 mil x 33 cm

| Code         | Description               | Size | Color | UOM    | Package |
|--------------|---------------------------|------|-------|--------|---------|
| GLVR0034ZZZS | Nitrile Gloves NF1513 #S+ | S    | Green | 1 pair | 1 pair  |
| GLVR0034ZZZM | Nitrile Gloves NF1513 #M+ | M    | Green | 1 pair | 1 pair  |
| GLVR0034ZZZL | Nitrile Gloves NF1513 #L+ | L    | Green | 1 pair | 1 pair  |



#### GLVR0035 thick 18 mil x 33 cm

| Code         | Description               | Size | Color | UOM    | Package |
|--------------|---------------------------|------|-------|--------|---------|
| GLVR0035ZZZS | Nitrile Gloves NF1813 #S+ | S    | Green | 1 pair | 1 pair  |
| GLVR0035ZZZM | Nitrile Gloves NF1813 #M+ | M    | Green | 1 pair | 1 pair  |
| GLVR0035ZZZL | Nitrile Gloves NF1813 #L+ | L    | Green | 1 pair | 1 pair  |



#### PVC Coated Gloves for Oil Protection

- PVC palm coating for added grip & dexterity
- Soft, flexible and comfortable
- Oil, chemical, acid, grease and solvent resistant
- Length 30 cm.

| Code         | Description             | Color | UOM    | Package |
|--------------|-------------------------|-------|--------|---------|
| GLVP0007ZZZZ | PVC Coated Gloves #656+ | Blue  | 1 pair | 1 pair  |



#### Oil Protection PVC Gloves

- PVC material, soft, flexible and durable
- Oil, chemical, acid, grease and solvent resistant
- Length 30 cm. Thickness 0.28 cm.
- Suitable for light industry
- Length 28.5 cm

| Code         | Description                     | Color | UOM    | Package |
|--------------|---------------------------------|-------|--------|---------|
| GLVP0012ZZZZ | Oil Protection PVC Gloves #781: | White | 1 pair | 1 pair  |



#### Neoprene Gloves

- Neoprene synthesis rubber. High scratch or pull resistant.
- Good for most hazardous chemicals
- Rough in the palm area allow to hold things tight
- Temperature adjustment: cold or heat
- Length 33 cm.



| Code          | Description                 | Size | Color | UOM    | Package |
|---------------|-----------------------------|------|-------|--------|---------|
| GLVP0001ZZ080 | Neoprene Gloves #29530 #8+  | 8    | Black | 1 pair | 1 pair  |
| GLVP0001ZZ090 | Neoprene Gloves #29530 #9+  | 9    | Black | 1 pair | 1 pair  |
| GLVP0001ZZ100 | Neoprene Gloves #29530 #10+ | 10   | Black | 1 pair | 1 pair  |



## Rubber Gloves #GR-1 (Thick)

- Natural rubber material
- Length 13 inches.
- Suitable for cleaning and general use

| Code          | Description           | Color  | UOM    | Package |
|---------------|-----------------------|--------|--------|---------|
| GLVR0009ZZZZZ | Rubber Gloves #GR-1 + | Orange | 1 pair | 1 pair  |



## All Purpose Rubber Gloves #GR-1 (Thick)

- Natural rubber material
- Length 13 inches.
- Dotted fingertips provides slip resistance

| Code          | Description                       | Color | UOM    | Package |
|---------------|-----------------------------------|-------|--------|---------|
| GLVR0008ZZZZZ | All purpose rubber Gloves #GR-1 + | Black | 1 pair | 1 pair  |



## Rubber Gloves #G627 (Thick)

- Comfort fit
- Length 18 inches
- Chemical, acid and oil resistant
- General use

| Code          | Description          | Color                | UOM    | Package |
|---------------|----------------------|----------------------|--------|---------|
| GLVR0020ZZZZZ | Rubber Gloves #G627+ | Black/<br>Orange End | 1 pair | 1 pair  |



## Rubber Gloves #G-627 (Thick)

- Natural rubber material
- Length 24 inches
- Chemical, acid and oil resistant

| Code          | Description            | Color | UOM    | Package |
|---------------|------------------------|-------|--------|---------|
| GLVR0017ZZZZZ | Rubber Gloves #G-627 + | Black | 1 pair | 1 pair  |



## Rubber Gloves

- Comfort fit
- Length 12 inches
- Chemical, acid and oil resistant
- General use

| Code          | Description                | Color | UOM    | Package |
|---------------|----------------------------|-------|--------|---------|
| GLVR0022ZZZZZ | Rubber Gloves #TIGER TECH: | Black | 1 pair | 1 pair  |



## Hand Protection

### Disposable Gloves



#### Nitrile Gloves Powder-Free

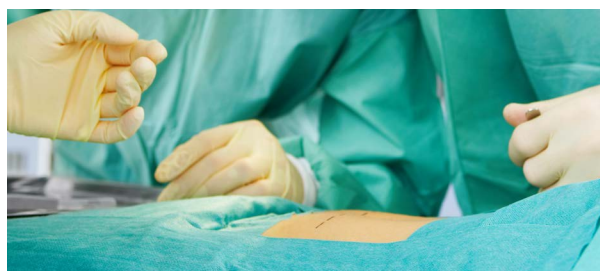
- Nitrile rubber, soft, durable and comfortable
- Prevents penetration of oil and chemicals
- Suitable for Laboratory, chemicals, food, electronics and light petro-chemical industries
- Length 25 cm.

| Code          | Description               | Color | UOM    | Package      |
|---------------|---------------------------|-------|--------|--------------|
| GLVR0011ZZZZS | Nitrile Gloves #37704 #S+ | Blue  | 1 pair | 50 pairs/box |
| GLVR0011ZZZZM | Nitrile Gloves #37704 #M+ | Blue  | 1 pair | 50 pairs/box |
| GLVR0011ZZZZL | Nitrile Gloves #37704 #L+ | Blue  | 1 pair | 50 pairs/box |



#### Rubber Gloves

- Natural rubber material, soft, durable and comfortable
- Easy to wear
- Suitable for Food and drug, cosmetics, laboratory, medical testing and others similar industries



#### Powdered rubber gloves

| Code          | Description                 | Size | Color | UOM   | Package      |
|---------------|-----------------------------|------|-------|-------|--------------|
| GLVR0023ZZZZS | Powdered Rubber Gloves #S + | S    | Beige | 1 box | 50 pairs/box |
| GLVR0023ZZZZM | Powdered Rubber Gloves #M+  | M    | Beige | 1 box | 50 pairs/box |
| GLVR0023ZZZZL | Powdered Rubber Gloves #L+  | L    | Beige | 1 box | 50 pairs/box |

#### Powder-free rubber gloves

| Code          | Description                      | Size | Color | UOM   | Package      |
|---------------|----------------------------------|------|-------|-------|--------------|
| GLVR0024ZZZZS | Powdered-free Rubber Gloves #S + | S    | Beige | 1 box | 50 pairs/box |
| GLVR0024ZZZZM | Powdered-free Rubber Gloves #M+  | M    | Beige | 1 box | 50 pairs/box |
| GLVR0024ZZZZL | Powdered-free Rubber Gloves #L+  | L    | Beige | 1 box | 50 pairs/box |

