# A GUIDE TO BUYING REUSABLE & DISPOSABLE GLOVES

UK.RS-ONLINE.COM (UK customers) WWW.RS-COMPONENTS.COM (international customers)







## **GLOVE BUYERS' GUIDE**

Welcome to our guide to buying gloves from the RS range which we have produced in partnership with one of our leading suppliers, Ansell. This guide sets out all the important points to consider when selecting a glove; provides details of the different types of glove we offer; shows you how and where to measure to get the right fit; and includes an overview of relevant EN Standards. We stock the widest selection of gloves from the most popular brands in the world with next-day delivery, competitive pricing and bulk discounts.

## **REUSABLE GLOVES**

To help you find your glove type quickly and easily we have divided our reusable gloves range into nine categories:

- Anti-vibration
- **Chemical resistant**
- **Cold resistant**
- Cut resistant
- **Electrical safety**
- **General purpose**
- Heat resistant
- **Puncture resistant**
- **Special purpose**



## **DISPOSABLE GLOVES**

We categorised our disposable gloves range so you can easily identify the disposable glove type you need:

- Chemical resistant
- Medical
- Minimal risk



## **INFORMATION**

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## **WIDE RANGE**

We offer a massive range of some 500 different gloves please visit rswww. com to shop the full range.



Purpose



Resistant

**Reusable General** Purpose

#### **OTHER GLOVE TYPES**



Gloves

ESD & Clean

Room



## WHICH GLOVES & WHY?

## WHY ARE GLOVES NEEDED IN THE WORKPLACE?

In the vast majority of workplaces, employees' hands are the most likely part of the body to actively be put at risk. Each country will have its own legislation regarding health and safety and employers have a duty to protect employees' welfare.

Within the five year period from 2006/07 to 2010/11 in the **UK alone** there were over 10,000 reported handling injuries classed as `Cuts or trapped fingers' which accounted for 16% of all major handling injuries. Within Europe, occupational skin diseases have **cost just the food industry D64 million**.



Reusable General Purpose

## WHY BUY GLOVES FROM RS?

As industry experts we offer a massive range of gloves for every requirement, from the professionally-approved RS brand to the global market leader Ansell, so you can find all the different gloves types you need from one source, with next-day delivery, competitivepricing and bulk discounts.

RS supplies two main glove types: **Disposable** and **Reusable**.



Neoprene Disposable

## **DISPOSABLE VS REUSABLE GLOVES**

**Disposable gloves** tend to be thinner, generally 4-8 mils thick. This allows the user to retain good touch sensitivity and dexterity but they have poor chemical resistance. They are designed for single use only and should never be re-used.

Disposable gloves are not suitable for handling some aggressive or highly hazardous chemicals. They provide little useful protection against physical hazards as they can easily tear or puncture if snagged.

#### Typical applications include:

- Electronics
- Assembly
- Food processing
- Medical

- Laboratory
- Dental

- Pharmaceutical
- Veterinary

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Schools

**Reusable gloves** are generally 18-28 mils thick. They offer greater protection than disposable gloves against abrasion and other physical hazards, are less likely to tear in use and will resist chemical attack for longer. However, they interfere more with dexterity and touch sensitivity and can still be damaged or penetrated by many chemicals. They need to be looked after to prolong their usefulness.

Reusable gloves usually have a longer cuff length than a disposable glove made with the same material, and so offer greater protection. ( )

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## **SELECTION OF A SUITABLE GLOVE**

There are four factors to consider when deciding which glove type is suitable for your work:

- **1 HAZARD**: the type of hazard, namely cut, chemical, puncture, anti-vibration, heat, cold or electrical.
- 2 **TASK**: the task being undertaken will usually be the key factor determining the choice of glove. RS's range is easy to shop and can be searched by glove type or the relevant European Safety Standards.
- **3** USER: user -specific requirements, such as size and fit, allergies, etc.
- 4 **CONDITIONS**: The workplace conditions, ergonomics, temperature, wet or dry conditions, etc.

These factors need to be considered together to ensure you have the right glove to suit your needs.

## SHOPPING THE RS RANGE



## **REUSABLE GLOVES:**

RS has split its reusable gloves range into nine different types:

• Anti-vibration: reduces the effect of impact, shocks and vibration for workers who use powered hand-held or handguided tools, or need to hold work pieces in direct contact with machinery for prolonged periods



Reusable Special Purpose

GO TO RS WWW  $(\rightarrow)$ 

- Chemical resistant: protects users from harmful chemical effects for industrial and pharmaceutical applications
- Cold resistant: protects the user from extreme cold exposure for applications such as farming, construction and machine operation
- **Cut resistant:** provides protection from sharp objects and are typically used in food applications
- Electrical safety: protects electrical engineers from shocks
- General purpose: protection from a variety of hazards such as cut, tear, puncture or abrasion for applications requiring mixed protection levels
- **Heat resistant:** protects from extreme heat exposure for applications such as laboratory, construction or catering
- **Puncture resistant:** provides protection from very sharp objects such as glass fragments, metal shards, wood splinters, nails, wire and needles.
- Special purpose: this section features non-standard, niche purpose gloves













### **REUSABLE GLOVES**

**Glove Material:** The table below provides an overview of the performance benefits of the various glove materials featured within our Reusable Gloves range.

IMPROVED PERFORMANCE	FIBRE USED	
Comfort	Cotton	
Toughness	Polyester	
Stretch	Nylon	
Elasticity	Lycra	
Insulation	Acrylic	
Cut and heat resistance	Kevlar	
Comfort, cut and abrasion resistance	Dyneema	
Comfort, cut and abrasion resistance	HPPE	-10
Cut resistance	Stainless Steel	
Comfort and dexterity	Latex	
Durability and resilience	Leather	
Cut resistance, dexterity and flexibility	Metallica Yarn	A STATE
Cold and chemical resistance with dexterity	Neoprene	
Puncture, cut and chemical resistance with dexterity	Nitrile	
Heat, cold, puncture and cut resistance	Para-aramid	Reusable General
Comfort and dexterity	Polycotton	Purpose

Comfort, dexterity and abrasion resistance	Polyurethane
Dexterity, food handling and abrasion resistance	PVC
Chemical resistance	Rubber
Comfort and dexterity	Spandex
Comfort	String Knit
Cut resistance	Tensilite
Cold resistance and dexterity	Thermal Yarn
Cold resistance	Thermastat Fibre
Cold resistance and comfort	Thermax

**Glove Coating:** the table below details the main performance benefits of different glove coating materials used within the RS range.

#### IMPROVED PERFORMANCE

#### **MATERIAL USED**

Excellent resistance to snag, cut, puncture and abrasion	Nitrile
Oil and wet grip	Nitrile Foam
Dry and wet grip	Latex
Dry, wet and oily grip	Neoprene
Good abrasion resistance and grip	PU
Good abrasion resistance	PVC

6

## ВАСК

## NUMBER, SIZES AND COLOURS

Number of Gloves: some gloves are sold as single items and other gloves are available in large packs which represent a great saving. Our web site also offers bulk discounts on the complete range. Feel free to contact us directly to obtain a quote. Tel: 0845 602 5226. Alternatively, you can request discount on large orders within the `My Quotes' section of `My Account' on rswww.com

#### Sizes

Because gloves from various manufacturers vary in size we have simplified our reusable gloves range into standardised size categories:

See pages 8 and 9 for details and a sizing guide to help you get the perfect fit.

#### Main Colour of Glove: this

relates to the dominant glove colour.

**Special Features:** this indicates an additional feature of the product, such as the maximum working voltage of an Electrical Safety Gauntlet.





Rating

0-4

0-4 0-4

0-1

## **EUROPEAN SAFETY STANDARDS: REUSABLE GLOVES**

Gloves within the RS range are provided by a number of suppliers and manufacturers and each is designed to comply with differing protection standards. To enable easy comparison and shopping within the gloves range, RS provides details of various compliance levels and ratings within the Specifications table relating to each product. Buyers can filter the range by selecting the specific

European or ANSI Standard they need for each application and comparing the relevant products.

The European and US standards are still the most frequently referred to even outside these continents. There are some national standards and specifications available although these are not normally recognised outside of their regions.



## **EUROPEAN STANDARDS: ENS**

#### **General requirements of EN420**

EN420 defines the general requirements for most types of protective gloves:

- Product and packaging information and marking
- Design and construction
- Fitness for the purpose
- Comfort and efficiency
- Innocuousness
- Storage
- Sizing

#### **Electrical Safety Gauntlets**

Electrical Safety Gauntlets are classed by the maximum working AC voltage that they protect against:

500V	Maximum working AC voltage	Class 00
1,000V	Maximum working AC voltage	Class 0
7,500V	Maximum working AC voltage	Class 1
17,000V	Maximum working AC voltage	Class 2
26,500V	Maximum working AC voltage	Class 3
36,000V	Maximum working AC voltage	Class 4

The higher the 'Rating' score, the better the performance.	
0 represents a fail; X denotes no test was carried out.	

#### **Mechanical H**



abcd

abcd

lazards EN388	

	•
<b>a</b> Resistance to abrasion	0-4
<b>b</b> Blade cut resistance	0-5
<b>c</b> Tear resistance	0-4
<b>d</b> Puncture resistance	0-4

#### **Chemical and Micro-Organism EN374**



Thermal Hazards (Heat and/or

Protection from Cold EN511

EN374	Rating
<b>EN374-2</b> Resistance to penetration by micr Referred to as Acceptable Quality Level ( <i>,</i>	0
<b>EN374-3</b> Resistance to chemical hazards (permeation)	1-6
Fire) EN407	Rating
Fire) EN407 a Burning behaviour	Rating 0-4
	0
<b>a</b> Burning behaviour	0-4
<ul><li>a Burning behaviour</li><li>b Contact heat</li></ul>	0-4 0-4

f Large splashes of molten metal

#### Rating a Resistance to convection cold **b** Resistance to contact cold c Permeability to water

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## HOW TO MEASURE YOUR GLOVE SIZE



REUSABLE GLOVES		
Size Range	Size Inches	Size CM
Small	6-8	15-20
Medium	8.5-9	21-23
Large	9.5-10	24-25
Extra Large	10.5-12	26-30

DISPOSABLE GLOVES		
Size Range	Size Inches	Size CM
Small	6-7	15-17
Medium	7.5-8	18-20
Large	8.5-9	21-23
Extra Large	9.5 +	24 +







## **GLOVE SIZING CHART**

Identifying the right size is the best way to make sure that gloves are comfortable; so use our handy Glove Sizing Chart to determine the best fit for you.

#### Instructions:

Place your right hand palm down on the drawing with your fingers together. Your index finger should be aligned with the blue line (but not over it), your thumb crotch placed correspondingly to the portrayed hand. Size is indicated by the width of your hand.

Another way to determine your hand size is to use a dressmaker's cloth tape to measure around the hand. Measure the circumference of your hand at the point below your fingers but above your thumb. The circumference of the hand (rounded to the nearest half inch) is numerically equal to the worker's average glove size.

Measuring the hands in this way will not account for all possible variations in hand size. Some workers, for example, may have long fingers, while others will have short fingers. Workers may find gloves that are one-half size, or even a full size, larger or smaller than the measured hand size fit more comfortably.



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## **DISPOSABLE GLOVES**

#### **Glove Type**

We have split our disposable gloves range into three different types to make it easy to find the right type for you:

 Chemical resistant: protects users from harmful chemical effects for a limited period of time for industrial applications



Neoprene

Disposable

- **Medical:** these gloves offer the highest level of quality for higher-risk environments
- Minimal risk: protects user from low-level risks for janitorial, general maintenance and light food processing tasks

**Glove Material:** The table below provides an overview of the performance benefits of the various glove materials featured within our Disposable Gloves range.

IMPROVED PERFORMANCE	FIBRE USED
Comfort and dexterity	Latex
Very high chemical resistance, low allergens	s Neoprene
High chemical resistance, high strength and puncture resistant	Nitrile
Low cost and low strength	Polyethylene
Comfort, low allergens and moderate streng	gth Synthetic Polymer
Low allergens and low cost	Vinyl
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- <sup>7</sup> The higher the 'Rating' score, the better the performance.
- 0 represents a fail; X denotes no test was carried out.

#### General requirements of EN420

EN420 defines the general requirements for most types of protective gloves:

- Product and packaging information and marking
- Design and construction
- Fitness for the purpose
- Comfort and efficiency
- Innocuousness
- Storage
- Sizing

#### **Chemical and Micro-Organism EN374**

Rating



<b>EN374-2</b> Resistance to penetration by micro-organisms. Referred to as Acceptable Quality Level (AQL)	1-3
<b>EN374-3</b> Resistance to chemical hazards (permeation)	1-6

#### **Devices Directive 93/42/EEC**

The Medical Devices Directives classifies devices according to the potential hazard, expected duration of contact and expected invasiveness. If a product conforms to the Medical Devices Directive it must carry a CE mark on its packaging and may also provide a statement of its classification. In addition, the properties of medical devices are described by a range of standards.

#### **Classification of Devices**

Classification of Devices	
Class I	Non-invasive devices, for example, examination gloves (entry into a bodily orifice is not considered invasive). Class I is generally regarded as low-risk.
Class I - Sterile	Sterilised Class I devices, for example, sterile procedure gloves. Class I is generally regarded as low-risk.
Class IIa	Short-term invasive devices, for example surgical gloves. Class IIa is generally regarded as medium-risk.

Information pertaining to a product's classification within the Medical Devices Directive can be obtained from individual product datasheets on the RS website. ( )

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### **DISPOSABLE GLOVES**

**Number of Gloves:** gloves are available in bulk packs which represent a great saving. Our web site also offers bulk discounts on the complete range. Feel free to contact us directly to obtain a quote.

#### **Disposable Glove Sizes:**

Because gloves from various manufacturers vary in size we have simplified our disposable gloves range into standardised size categories. See pages 8 and 9 for details and a sizing guide to help you get the perfect fit.

**Powdered or powder-free:** powdered gloves assist in putting the glove on which makes them the ideal choice for those who need to change gloves frequently; whilst powder-free gloves are ideal for environments where product contamination is a potential issue.

**Colour:** this describes the glove colour.

## **DISPOSABLE GLOVES**

Food Safe: indicates whether the glove is suitable for food contact.

**Anti-Static:** Anti-static materials are generally referred to as any material which inhibits triboelectric charging. This is the buildup of an electric charge by rubbing or contact with another material. The term `anti-static', however, does not refer to resistance or resistivity as required in an ESD-protected environment and ESD-safe disposable gloves can be found within the ESD Control & Clean Room section of the RS web site.

Acceptable Quality Level (AQL): this relates to the maximum number of defects you can expect per 100 gloves.

For example, European Standards state that medical examination gloves shall have an AQL of 1.5. This means that it's acceptable for up to 1.5% of gloves made to contain a pinhole.

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