



# Learning about Electrostatic Discharge - Part 3: Choosing the Right ESD Glove



## Contents

Choosing Your ESD Glove	
What to consider	3
Testing	3
When to use gloves	4
The choice of ESD gloves	
Rubber & plastic gloves	4-5
Fabric gloves	6
Additional features of fabric gloves	
PU tip	7
Dotted palm	7
PU palm	7
Seamless knit	7

Call one of our ESD experts: +44 1473 836200

## Choosing Your ESD Glove

### What to consider

When choosing gloves for use in ESD and cleanroom work, many parameters must be considered. The most important of which are:

1. Resistance of the glove from the object being held to the operator's hand
2. Triboelectric generation
3. Contamination
4. Personnel sensitivity to glove materials

### Testing

All our gloves/finger cots are tested using the ESD Association Standard Test Method ANSI/ESD 15.1-2019. This measures the intrinsic electrical resistance of gloves and finger cots, as well as their electrical resistance, together as a system. This latest Method also includes "In use" resistance measurement of a glove/finger cot and personnel together as a system using a constant area and force electrode (CAFE).



## When to use gloves

Within the world of ESD Protected Areas (EPAs) gloves are worn during one of two processes: Handling or Assembly.

When Handling, the gloves protect the operators' hands. When Assembling, the gloves are worn to prevent components and assemblies from becoming contaminated. In both scenarios, the gloves worn within the EPA should be conductive or static dissipative.

## The choice of ESD gloves

There are several types of ESD-safe gloves that are commonly used which can be divided into rubber, plastic and fabric gloves.

*Note: Wearing gloves does not negate the need for wrist straps or other effective personnel grounding methods.*

## Rubber and plastic gloves

### Nitrile Gloves

Made from synthetic rubber which is a great option for workers who are allergic to latex, plus they are inherently antistatic. Nitrile gloves are also much more puncture resistant than rubber

Suitable for a range of uses and applications, including:

- Electronics
- Biotech
- Aerospace Science
- Lab Examination
- General Purpose



### Vinyl Gloves

Vinyl gloves are another option for latex-sensitive workers. Vinyl gloves usually have a looser fit than latex gloves and the material is very soft. These gloves are less durable and less puncture resistant than nitrile and latex gloves.

Suitable for a range of uses and applications, including:

- Electronics
- Biotech
- Aerospace Science
- Lab Examination
- General Purpose



Call one of our ESD experts: +44 1473 836200

## Latex Gloves

Latex gloves are the gloves most people think of when rubber gloves are mentioned. These gloves are affordable, fit well, durable and very elastic. The major disadvantage with latex gloves is that they cannot be worn by workers with a latex allergy.

Suitable for a range of uses and applications, including:

- Electronics
- Biotech
- Aerospace Science
- Lab Examination
- General Purpose



## Finger Cots

Finger cots are another option for ESD protection. They come in a variety of materials and provide ESD protection with more mobility than gloves.

Suitable for a range of uses and applications, including:

- Electronics
- Biotech
- Aerospace Science



For more information on rubber and plastic gloves, scan the QR code to see our separate Learning about Contamination Control glove guide.

## Fabric gloves

### Nylon Gloves

Nylon gloves can be found in stretch, low-lint and lint-free varieties. They are also reusable and many times they can be washed without losing their anti-static properties.

Suitable for a range of uses and applications, including:

- Electronics
- Aerospace Science
- General Purpose

### Carbon Gloves

Carbon gloves are ideal for use when handling or transporting devices and components that are susceptible to damage from electrostatic discharge.

Suitable for a range of uses and applications, including:

- Electronics
- Aerospace Science
- General Purpose

### Copper Gloves

Gloves with Conductive Copper Filament are the perfect choice for added ESD protection. The copper liner is used in environments where protection against ESD is critical. The copper glove is ideal for handling electronic parts.

Suitable for a range of uses and applications, including:

- Electronics
- Aerospace Science
- General Purpose

### Heat Resistant Glove

Heat resistant gloves are used when handling “hot” circuit boards; the gloves dissipate ESD while providing comfort for the worker.

Suitable for a range of uses and applications, including:

- Electronics
- Aerospace Science
- General Purpose



Call one of our ESD experts: +44 1473 836200

## Additional features of fabric gloves

Our fabric gloves come with many additional features which can benefit production and user comfortability.

### PU tip

PU fingertips give better grip and protection when handling sensitive components. They also make it a great choice for environments where protection against ESD is important.



### Dotted palm

Dotted palm cover the palm allowing extra grip for the user making them ideal for handling large or heavy ESD sensitive devices.



### PU palm

PU Palm Gloves offer the ideal safety solution to prevent damage and avoid downtime.



### Seamless knit

Seamless Knit Glove's elastic, breathable and dust-free properties help to maintain user comfort.



For our full range of ESD gloves, scan the QR code to the left. To understand more on which gloves are best for you EPA, contact our expert team.



### ISO 9001 QUALITY ASSURED

We are focused on meeting our customer's expectations and delivering exceptional customer satisfaction.

### CUSTOMER FOCUSED APPROACH

With over 35 years' experience, our service culture is the very core of our customer's success.

### STANDARD OF EXCELLENCE

From beginning to end our team of knowledgeable experts are here to help.

### ADDRESS

Integrity House, Easlea Road,  
Bury St. Edmunds, Suffolk, IP32 7BY UK

### CONTACT US

+44 (0)1473 836 200 | [info@antistat.co.uk](mailto:info@antistat.co.uk) | [www.antistat.co.uk](http://www.antistat.co.uk)

+44 (0)1473 836 205 | [info@integritycleanroom.co.uk](mailto:info@integritycleanroom.co.uk) | [www.integritycleanroom.co.uk](http://www.integritycleanroom.co.uk)

Ant Group comprises of Antistat and Integrity, both of which are trading divisions of ESD Control Centre Ltd. Registered No. 2526954. Registered Address: Integrity House, Easlea Road, Bury St Edmunds, Suffolk IP32 7BY.

© Copyright 2023 Ant Group Limited. Permission granted to reproduce for internal use only. Commercial copying, hiring, lending is prohibited.

Updated 27 October 2023 10:56 am

