



# BACKGROUND

In some critical production environments, electrostatic discharges can damage sensitive electronic device. Since human beings are electricity conductive, operators must wear ESD protective gloves for handling ESD devices.

## What is an electrostatic phenomena?

If two materials are brought into contact and rubbed, there is an exchange of electric charges (static electricity).

When those charges are not dissipated, then they accumulate and electrostatic discharges can occur.

## Why are dissipative gloves necessary?

A dissipative material has the ability not to accumulate electrostatic charges. It dissipates them. Dissipative gloves are necessary to avoid electrostatic discharge.

## Where do electrostatic discharges can occur?



EPA (ESD protected area) or ESD protected zone.

Main industries: electronics, automotive, consumer products.

ATEX zone (EXplosive ATmosphere).

Main industries: chemical, pharmaceutical, agricultural (grain silo).

## Which standard deals with electrostatic properties?

	GLOVES STANDARDS REQUIREMENT	TEST METHOD	PICTOGRAM
<b>Protection of Electronic devices</b> from <b>ElectroStatic Discharge (ESD)</b>	<b>No standard</b>	<b>No test method</b>	<b>No pictogram</b>
<b>ATEX environment</b>	<b>EN 16350</b> <b>Vertical resistance: <math>&lt;10^8 \Omega</math> at 25% relative humidity</b> <i>*The tests must be performed on 5 samples which must all pass the limit of vertical resistance</i>	<b>EN 1149-2</b>	Introduced in EN ISO 21420: 2020  

## MAPA PROFESSIONAL POSITION

Working in ATEX zones or handling electronic devices, both areas have the same need for suitable gloves: they must not accumulate charges and they must be dissipative.

As until now there is no standard established for ESD gloves, at MAPA PROFESSIONAL we decided to refer to the EN 16350 standard (ATEX gloves) to evaluate the dissipative properties of our gloves. This standard is very strict, as a consequence a glove complying with the EN 16350 standard will be suitable for handling electronic devices.



**Wearing gloves alone does not prevent from electrostatic discharges. The worker must wear suitable dissipative clothing and footwear to be permanently earthed.**

# MAPA SOLUTION ULTRANE 524



## Protection of electronic device from ElectroStatic Discharge (ESD)

No risk of damage of pieces handled



## Touch screen at thumb and index



## High Comfort & Breathability

Excellent dexterity at fingertips  
Second skin effect (gauge 18)  
Suppleness & flexibility  
Breathability



## Additional key features

No pollution thanks to light colour to spot dirtiness  
Washable 1 time at 40°  
Silicon Free



## EXAMPLES OF APPLICATION



Automotive OEM  
Assembly line Electric card



White Appliances  
Handling / Mounting of thin and small part  
Assembly line

## FOR INDUSTRIES SUCH AS




Automotive industry  
Aeronautics industry  
White appliances

Electronics industry  
Optics



# PRODUCT SPECIFICATION

Product specifically developed to dissipate electrostatic charges for precise and repetitive tasks where **dexterity, comfort and durability** are required

<b>Reference</b>	<p><b>ULTRANE 524</b></p> 
<b>Standards &amp; labels</b>	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>EN 388</p>  <p>2X20A</p> </div> <div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>EN 16350</p>  </div> </div>
<b>Interior and exterior finish</b>	<p>Seamless textile with conductive fiber Polyurethane coating on palm and fingers Knitted wrist</p>
<b>Gauge</b>	18
<b>Length</b>	22 - 27 cm
<b>Size</b>	6 7 8 9 10 11
<b>Packaging</b>	1 masterbag of 12 pairs - 96 pairs by carton
<b>Washable</b>	1 time at 40°C
<b>Advantages</b>	<p>Protection of electronic device from ESD Touch screen (thumb/index) Comfort suppleness and dexterity Silicon Free</p>
<b>Applications</b>	<p>Automotive industry / Aeronautic industry / White appliances / Electronics industry / Optics</p>

There are a variety of risks depending upon the environment.  
Mapa Professional provides you with a complete range of protective gloves.