



# ESD & ATEX ZONES

GLOVE SERIES

AC200 | AX200 | AP800 | AC800 | 660ESD

ELEKTROSTATIC DISAPATIVE

ATEX ZONES INFORMATION

**THE ULTIMATE ANTI-STATIC/EXPLOSION PROTECTION  
ENGINEERED FOR STRENGTH, BUILT FOR SAFETY**



Electrostatic discharge (ESD) is a sudden and momentary flow or electric current between two electrically charged objects caused by contact, an electrical short or dielectric breakdown.

## ANTI-STATIC

### PROTECTING YOUR PROCESSES FROM ANTI-STATIC HAZARDS

It is essential to prevent static sparks from damaging sensitive electronic components and, in high-risk environments, preventing accidental ignition or explosions

## THE RISKS OF ELECTRO-STATIC DISCHARGE

SHOWA's anti-static protection gloves are your hands' PPE solution in a statically charged work environment. All of our antistatic gloves follow surface resistivity standards. This feature makes our gloves the preferred choice in industries such as Aerospace, Automotive, IT, and Electronics & Semiconductor Manufacturing.

Production operations that involve intricate work with circuit boards or handling heavy equipment in a hazardous environment are just some of the conditions sensitive to static discharge. Don't wait for a disaster to happen at your site. Choose Showa ESD gloves to protect your products and process from electrostatic discharge



## HOW TO PREVENT ESD?

Change the direction of the electrostatic charge (flow of electrons) migration to go into the ground instead of sensitive areas.



### ELECTRICAL GROUNDING

Use wrist straps and grounding cables to safely dissipate electrical charges. Employees, PPE, and work equipment should all be correctly grounded for proper static control.



### AVOID INSULATING MATERIALS

Do not use or wear gloves, apparel, or other equipment made from insulating materials that prevent successful static charge dissipation.



### CHOOSE SHOWA ESD GLOVES

SHOWA ESD gloves comply with EN 16350 certification standards for ESD & ATEX Zone work environments.

## MATERIAL PROPERTIES DEFINED

- 1. Anti-static** a material that prevents triboelectric charging.
- 2. Conductive:** carries a charge quickly from one surface to another. These gloves have a low resistivity to the passage of a current. The ESD measurement would be less than  $10^5$  Ohms/Square.
- 3. Static Dissipative:** slows the transfer of a charge from one surface to another and would help prevent damage to electronic components. The ESD measurements would be at least 105 and up to  $10^{11}$  Ohms/Square.
- 4. Insulative:** materials prevent or limit the flow of electrons and are difficult to ground. Static charges can remain in place on these materials. Insulative materials are defined as those having a surface resistivity of at least  $10^{12}$  Ohms/Square.



## Methods for the resistance testing of gloves.



ANSI/ESD 15.1 - 2019



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SHOWA  
**AC200**

**FEATURES:**

**GRIP:** N/A Uncoated  
**LINER:** 18-gauge seamless knit with HPPE anti-static dissipative yarn

REF.	SIZE
AC200S-06	6/S
AC200M-07	7/M
AC200L-08	8/L
AC200XL-09	9/XL

- ADVANTAGES:**
- ANSI CUT E/A4
  - Touchscreen compatible
  - Silicone-free
  - Breathable

**APPLICATIONS:**  
Safe Usage in ATEX ZONES & Electrostatic Protected Areas (EPAs), Electrical parts & components handling, Intricate parts handling, Repairs & maintenance, Mechanical & engineering.

**DURACoil Alpha™**

Durability in Every Stitch



ANSI LEVEL 4 CUT RESISTANT



**DURACoil Alpha™**

Durability in Every Stitch



SHOWA  
**AP800**

**FEATURES:**

**GRIP:** S-shaped palm finish  
**LINER:** 13-gauge seamless knit with a Microfiber polyester static dissipative yarn

**COATING:** Microporous Nitrile

REF.	SIZE
AP800S-06	6/S
AP800M-07	7/M
AP800L-08	8/L
AP800XL-09	9/XL
AP800XXL-10	10/XXL

- ADVANTAGES:**
- Advanced Liner Design
  - Embossed Nitrile Grip
  - Touchscreen compatible
  - Silicone-free

**APPLICATIONS:**  
Safe usage in ATEX ZONES & Electrostatic Protected Areas (EPAs), Automotive repairs & maintenance, Intricate parts handling, Light assembly of oil-coated pieces, Mechanical & engineering.



SHOWA  
**AC800**

**FEATURES:**

**GRIP:** S-shaped palm finish  
**LINER:** 18-gauge seamless knit with HPPE anti-static dissipative yarn

**COATING:** Microporous Nitrile

REF.	SIZE
AC800S-06	5/XS
AC800M-06	6/S
AC800M-07	7/M
AC800L-08	8/L
AC800XL-09	9/XL
AC800XXL-10	10/XXL

- ADVANTAGES:**
- ANSI CUT E/A4
  - Advanced Liner Design
  - Embossed Nitrile Grip
  - Touchscreen compatible
  - Silicone-free

**APPLICATIONS:**  
Safe usage in ATEX ZONES & Electrostatic Protected Areas (EPAs), Automotive repairs & maintenance, Intricate parts handling, Light assembly of oil-coated pieces, Mechanical & engineering.



SHOWA  
**AX200**

**FEATURES:**

**GRIP:** N/A Uncoated  
**LINER:** 18-gauge seamless knit with Nylon & anti-static dissipative yarn

REF.	SIZE
AX200S-06	6/S
AX200M-07	7/M
AX200L-08	8/L
AX200XL-09	9/XL

- ADVANTAGES:**
- Touchscreen compatible
  - Silicone-free & fingerprint-free
  - Breathable
  - Ergonomic Design

**APPLICATIONS:**  
Safe usage in ATEX ZONES & Electrostatic Protected Areas (EPAs), Electrical parts & components handling, Intricate parts handling, Repairs & maintenance, Mechanical & engineering



SHOWA  
**660ESD**

**FEATURES:**

**GRIP:** Rough  
**LINER:** Anti-static Seamless Cotton Liner  
**COATING:** Full PVC  
**LENGTH:** 12 in

REF.	SIZE
660ESDL-09EU	9/L
660ESDXL-10EU	10/XL

- ADVANTAGES:**
- Oil-resistant
  - Abrasion-resistant
  - Extra Grip
  - Chemical-resistant
  - Comfortable Liner

**APPLICATIONS:**  
Safe Usage in ATEX Zones Electrical parts and components handling, Chemical Spray & Treatment, Oil & Gas Industry





**SHOWA ESD WORK GLOVES:  
REDUCING ELECTROSTATIC  
DISCHARGE RISK IN ATEX ZONES**

Electrostatic discharge in a work environment occurs when materials with two opposing charges make contact. A transfer of static charge can have a range of minor to severe consequences. From electrical component damage, to equipment damage, even fires or explosions- it is important to understand how ESD can create serious risks to the workplace environment.

Work environments containing sufficient concentrations of solvents or combustible dusts are classified as ATEX zones, indicating the presence of an explosion risk. Common activities that pose an increased danger in these ATEX zones include:

- Manufacturing, refining, & transporting explosive goods
- Pumping flammable Liquids from tanker trucks
- Working around chemical or pharmaceutical formulation and mixing tanks
- Performing test sampling from industrial solvent tanks
- Cleaning with high-concentration solvents in enclosed spaces
- Processing fine, dusty powders in food manufacturing, chemical production, & metal processing facilities
- Handling waste materials that produce waste gas or combustible dust

**WHY STATIC DISCHARGE IS AN IGNITION RISK?**

The danger lies in **charge accumulation** in the presence of flammable materials.

- 1. Accumulation:** Workers build up a static charge through routine movement and friction.
- 2. Sudden Discharge:** An electrostatic spark is created when that charged worker nears a grounded object.
- 3. Ignition:** In ATEX zones, this spark provides the energy needed to ignite flammable gases, vapors, or dust.

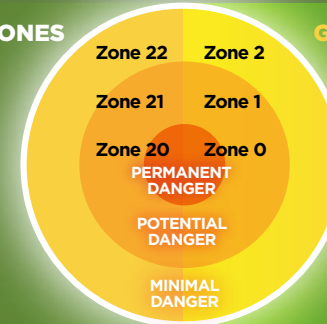
Workers performing tasks in ATEX Zones must wear gloves that prevent this buildup. By complying with the **EN 16350** standard, SHOWA incorporates conductive materials into both the textile liner and the polymeric coating. This ensures that static charge is dissipated safely through the glove rather than accumulating and sparking.

**Explore our ATEX / ESD Gloves to protect your team and your environment.**

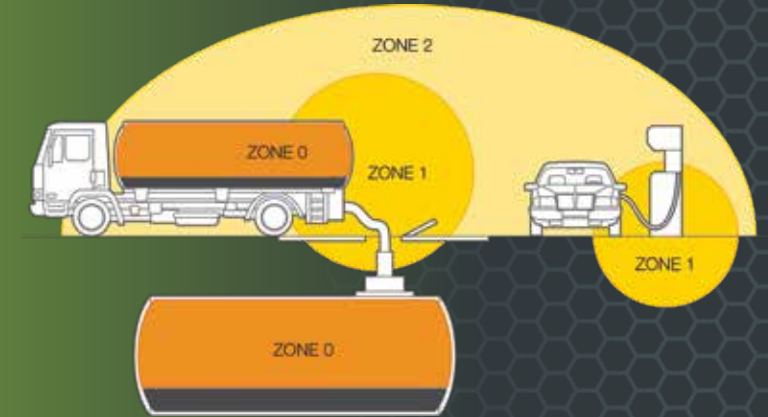
ATEX zones classify areas based on the likelihood and duration of explosive atmospheres, primarily from flammable gases, vapors, or dust. These zones are categorized into gas/vapor zones (0, 1, and 2) and dust zones (20, 21, and 22). Understanding these zones is crucial for using appropriate PPE & implementing important safety protocols.

**IDENTIFYING ATEX ZONES**

**DUST ZONES**



**GAS ZONES**



European classification	North America classification	Definition of zone or division
Zone 0 (gases)	Class I Division 1 (gases)	An area in which an explosive mixture is continuously present or present for long periods
Zone 20 (dusts)	Class II Division 1 (dusts)	An area in which an explosive mixture is likely to occur in normal operation
Zone 1 (gases)	Class I Division 1 (gases)	
Zone 21 (dusts)	Class II Division 1 (dusts)	An area in which an explosive mixture is not likely to occur in normal operation and if it occurs it will exist only for a short time
Zone 2 (gases)	Class I Division 2 (gases)	
Zone 22 (dusts)	Class II Division 2 (dusts)	

**IN AN ATEX ENVIRONMENT, AN EXPLOSION OCCURS WHEN SIX CONDITIONS ARE MET SIMULTANEOUSLY:**



**ESD GLOVES MATTER**

With even the smallest spark capable of triggering a large explosion in sensitive ATEX environments, it's crucial to



**LOOK FOR THE ESD EN STANDARD ICON**



**TALK TO A SHOWA REP FOR ESD/ATEX ZONE GLOVE TRAINING**



**SCHEDULE A Sentinel Survey ON-SITE HAZARD ASSESSMENT**



SCAN FOR DIGITAL COPY

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