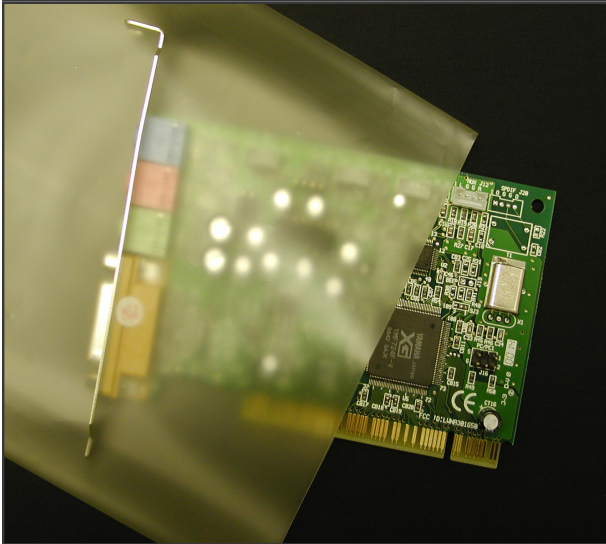


# Zerust®

## Multimetal ElectroStatic Discharge (“ESD”) Shield

### Corrosion Protection Plus Anti-Static Film



**Hassle Free, Cost Effective  
Corrosion Protection plus  
Electrostatic Discharge Protection**

**Zerust® Multimetal ElectroStatic Discharge (ESD) Shield** provides a powerful three-in-one protection system against electrostatic discharge, corrosion and contamination for all electrical and electronic products.

**Zerust® Multimetal ESD Shield** contains proprietary chemical formulations that release an invisible, odorless, non-toxic rust and corrosion inhibiting vapor into the air. The Zerust® vapor molecules will settle on exposed metal surfaces in an enclosure and protect them from rust and corrosion.

All **Zerust®** corrosion inhibiting products are environmentally friendly, non-toxic, odorless, and non-allergenic.

**Zerust® Products** have been cleared by the US Food & Drug Administration for protecting metals used in food processing and packaging.

**Zerust® Multimetal ESD Shield** does not interfere with the properties or functionality of the items being protected.

**Zerust®** corrosion inhibiting formulations are extruded into the plastic film during production so that they cannot flake off, stick to, or otherwise damage the product they are supposed to protect.

**Zerust® Multimetal ESD Shield**

# Zerust® Multimetal ESD Shield

**Corrosion Protection  
Plus Anti-Static Film**

## About the Product

**Zerust® Multimetal ElectroStatic Discharge Shield (= Multimetal ESD Shield)** is protection against electrostatic discharge, corrosion and contamination.

## Applications

Use **Zerust® Multimetal ESD Shield** with electronic and electrical products such as cell phones, cartridges, and computer parts.

## Sizes and Availability

**Zerust® Multimetal ESD Shield** is available in bags and sheets (perforated on a roll), rolls of sheeting and tubing.

## How to use Zerust® Multimetal ESD Shield

Simply insert into, wrap, or cover the metal component with **Zerust® Multimetal ESD Shield**. Make sure to securely close or seal the bag, or wrap the film tightly; this restricts airflow and maximizes corrosion protection. The bag or film can be secured with tape, heat-sealed, stapled, secured with a tie, or secured with a rubber band.

## Test Results

Coupons of the ferrous and non-ferrous alloys listed below were placed in plain polyethylene 4 mil bags (Controls) and **Zerust® Multimetal ESD Shield** of the same thickness. All bags were sealed and placed in a water fog chamber (ASTM-B-117-73) at 100 °F (38 °C) and 100% relative humidity. The results after 95 days were as follows:

Material	Plain Polyethylene Bags	Zerust® ESD Shield
6061T6 Aluminum	Moderate Corrosion	No Corrosion
QQ-C-565 Copper	Severe Corrosion	No Corrosion
260 Soft Brass	Severe Corrosion	No Corrosion
521 Phosphorous Bronze	Severe Corrosion	No Corrosion
Galvanized Steel	Moderate Corrosion	No Corrosion
Steel	Severe Corrosion	No Corrosion

## Physical Data

<b>Features</b>	Static Decay is 0.1 seconds to the 1% cutoff level (to 99% charge dissipation). Surface Resistivity average $1.0 \times 10^{11} \Omega/\text{sq}$ . Surface Resistivity range $10^{10}$ to $10^{12} \Omega/\text{sq}$ (Static Dissipative).
<b>Test Results</b>	All new materials meet the above specifications using industry standard anti-static packaging material specifications and tests such as MIL B-81705D and EIA-541, both which use Federal Test Method (FTM) 101C, Method 4046 for static decay and surface resistivity (ASTM-D 257) per ESD S11.11, with preconditioning of samples 48 hours at 12.5% RH and 72°F.
<b>Color</b>	Clear, Pink, Yellow, or any other custom specified color.
<b>Shelf Life and Effectiveness</b>	Estimated shelf life of 2 years (based on accelerated tests) if stored in the original packaging at 85° F (30° C) or less. Estimated shelf life of optional Anti-Static Dissipative protection is 1 year. Subsequent in-service life is up to 1 year of corrosion protection under proper packaging, storage and handling conditions. Anti-Static Dissipative protection is for 6 to 12 months for relative humidity in the range of 30 to 80 RH and temperatures below 85° F (30° C).
<b>Sealing</b>	Heat sealable with standard equipment.
<b>Handling</b>	No special handling required. Benefit of Zerust® Multimetal ESD Shield packaging requires use of normal good practices in handling, packing and removing the components to avoid electrostatic discharge (ESD) damage.
<b>Restrictions</b>	Not recommended for direct prolonged exposure to sunlight.

We guarantee this product conforms to production specifications and was made in accordance with documented ISO 9001 Quality Procedures. We expressly disclaim responsibility for its use. We make NO WARRANTY OF ANY KIND, EXPRESSED OR IMPLIED, as to the effects of use (including, but not limited to, damage or injury) or the results to be obtained, whether or not used in accordance with the directions. Buyer / user agrees that, if product proves to be defective, Seller's obligation shall be to replace or refund the purchase price of such product at Buyer's option. Seller shall not be liable in tort or contract for any loss or damage, incidental or consequential.

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# Zerust®

**Zerust® Multimetal ESD Shield**