

# ESD PROTECTIVE SOLUTIONS

PROTECTING ELECTRONICS THROUGHOUT  
THE SUPPLY CHAIN



**ORBIS**<sup>®</sup>

 Powered by Menasha Corporation

# ESD CONTAINERS ARE IDEAL FOR ELECTRONICS, TELECOMMUNICATIONS, AND COMPUTERS

## What is ESD?

Electrostatic Discharge (ESD) transfers a finite amount of charge between two bodies at different potentials. Discharges from external sources like humans and equipment or induced electrostatic fields can damage ESD sensitive parts. ESD-safe containers protect integrated circuit (IC) products, including circuit boards and other electronics in the automotive supply chain from being damaged through electrostatic discharge. Utilizing ESD products will protect the most sensitive components from static charge that occurs during manufacturing, assembly, and shipping of electronic devices. Common parts that use ESD-safe packaging include USBs, circuit boards, video outputs, 12-V DC systems, RF outputs, LED lighting, and other electronics.



ESD-safe containers will have a "ESD Protective Container" logo on each container.



## How can you protect against ESD?

ORBIS helps customers protect sensitive electronic parts from static discharge. ESD-safe material will transfer the charge through the container, keeping your products safe during transportation. The two primary materials used are conductive and static dissipative material. The electrical properties of this material are permanent and unaffected by washing. ESD-safe material is available in all ORBIS StakPak® and Hand Held Folding Containers. Standard sizes are available in both AIAG and metric footprints and are compatible with ESD-safe lids.



RCSO2415-1 lid on NXO2415-11.5



HHFC2415-11

## ESD Reference Guide

Resistance Classification taken from ANSI-ESD S541-2018.



### Insulative: ORBIS Standard Offering

Insulative materials have a surface resistance of  $\geq 10^{11}$  Ohms. The more resistant a material is, the faster a current will flow across the material. Insulative materials discharge slower than most static charges are created. This allows a charge to build up over time, making this material unsuitable for ESD needs.

### Conductive vs. Static Dissipative

Conductive materials have a surface resistance of  $< 10^4$  Ohms. This material quickly displaces the charge, helping to protect direct discharges from reaching sensitive products. Static dissipative materials have a surface resistance of  $\geq 10^4$  to  $< 10^{11}$  Ohms. This material displaces charge slower than conductive materials. Both conductive and static dissipative materials help drain existing charge away from products. Dissipative materials help protect against charged device model (CDM) damage. If a sensitive device or circuit board becomes charged, dissipative material will slowly control the discharge to protect the product. These permanent and reusable solutions help protect electronics throughout the supply chain. For more information on ESD materials, please contact your ORBIS sales representative.



**ORBISShield®**

### ORBIS offers customized part protection with ORBISShield® protective dunnage

Rely on ORBIS® for custom protective dunnage from its ORBISShield® line to protect parts during transit, assembly and storage. The long term implementation of ORBISShield® dunnage improves inventory control by maintaining consistent quantities in each container and optimizes lineside efficiency by facilitating better part presentation. Using all types of foam, sheet and fabric materials and state-of-the art technology, ORBIS® is your single-source leader in reusable dunnage.

#### ESD-SAFE PROTECTIVE DUNNAGE:










- Includes conductive properties
- Provides air gaps between sensitive parts
- Ideal for electronics as base pads and divider sets for medium weight parts
- Ideal for transporting electronic components

# A SHIFT IN THINKING

Reusable packaging improves the flow of product along the supply chain, to reduce total costs. ORBIS uses proven expertise, industry-leading knowledge and superior products to create reusable packaging systems that help world-class companies move their products faster, better, safer and more cost effectively.

To learn more on how ESD protective solutions can optimize your supply chain or to request a quote, please contact your ORBIS sales representative today.

-  REDUCE WASTE
-  SAVE COSTS
-  IMPROVE EFFICIENCY
-  OPTIMIZE SHIPMENTS
-  PROTECT PRODUCT
-  OPTIMIZE AUTOMATION
-  REDUCE TRIP COSTS

## CONTACT US

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