

Attention: Editor August 4, 2025 PRESS RELEASE



From Factory to Flight: Corrosion and ESD Protection for Avionics

Avionics are the brain and nervous system of airplanes, helicopters, drones and spaceships. Without them, aircraft would not get off the ground or stay in the air—which is why avionics reliability is imperative. Avionics damaged by corrosion or static may fail early and unexpectedly—or not function at all. To ensure aeronautical engineers and aircraft mechanics get reliable avionics in their hands, Cortec® suggests a simple packaging strategy to keep avionics in good condition and ready to install at any point in the shipping and storage phase.





Avionics 'Rite of Passage'

Avionics do not go directly out of the factory into the airplane. They first travel through many possible climates and unpredictable weather patterns to reach distribution facilities where they may sit until the aircraft mechanics need them. Although avionics fulfillment centers are often climate controlled for component safety, this may not always be the case, leaving avionics at the mercy of fluctuating temperatures, humidity, and

condensation corrosion at many potential points in the journey. In addition, some components are vulnerable to static damage simply during handling.

Two-in-One Protection

EcoSonic® VpCI®-125 HP Permanent ESD Film & Bags provide a two-in-one packaging solution that protects against both corrosion and static damage to keep avionics in play. Like other VpCI® packaging, these bags contain Vapor phase Corrosion Inhibitors, which vaporize out of the plastic film and form a protective molecular layer on metal components inside the package, hindering the electrochemical corrosion reaction even in the presence of moisture. They also include permanent ESD properties for long-term protection against static damage. By combining these two attributes



into one bag, Cortec® reduces the need to add desiccant, streamlining the electronics packaging process. Avionics that are not static sensitive can likewise benefit from VpCI®-126 bags, which provide corrosion protection minus the ESD protection and desiccant. With these solutions, avionics manufacturers and distributors have some great options to cope with uncontrolled shipping and storage environments on many types of avionics:

- Computers
- PCBs
- Circuit breakers
- Servers
- Computers
- Navigation and communication systems
- Instrument panels



Supplementary Corrosion Solutions for Avionics Mechanics

Thanks to the careful measures taken to protect onboard avionics, the most logical place to use VpCI® protection is during avionics shipping and storage. However, occasions still arise when moisture can leak into instrument compartments and initiate corrosion of which the pilot remains unaware. Aircraft mechanics who know these trouble spots may enhance safeguards by adding a VpCI® emitter to a vulnerable electronics

compartment, cleaning corroded circuit boards with <u>ElectriCorrTM VpCI[®]-239</u>, and spraying and leaving a light film of ElectriCorrTM to dry on exposed electrical contact points during routine inspection.

Stop Worrying about the Weather

There's no doubt that avionics play a critical role in our ability to fly and explore space. While aircraft manufacturers go to great lengths to make sure their avionics bays are well protected, it is just as important for avionics manufacturers and

distributors to implement strategic corrosion and ESD solutions during shipping and storage. VpCI[®] bags make it possible to do so, regardless of unpredictable weather patterns or static conditions. <u>Learn more about these and other avionics</u> protection strategies when you contact Cortec[®].

Keywords: corrosion, ESD protection, corrosion on avionics, ESD shipping solutions, Cortec, avionics storage tips, avionics shipping tips, what causes corrosion on electronics, what causes corrosion in aviation, aircraft corrosion

Need a High-Resolution Photo? Visit: www.cortecadvertising.com.

Cortec® Corporation is the global leader in innovative, environmentally responsible VpCI® and MCI® corrosion control technologies for packaging, metalworking, construction, electronics, water treatment, oil & gas, and other industries. Our relentless dedication to sustainability, quality, service, and support is unmatched in the industry. Headquartered in St. Paul, Minnesota, Cortec® manufactures over 400 products distributed worldwide. ISO 9001:2015 and ISO 14001:2015 certified. Cortec® website: http://www.cortecvci.com. Phone: 1-800-426-7832. FAX: (651) 429-1122.