

GulfCoat[®] circuit board conformal coating

Circuit Shield[™] Aerosol Circuit Board Conformal Coating

Protects critical components of electronic equipment against corrosion, moisture, pests and other environmental factors.

Offer the best protection available with GulfCoat[®] Circuit Shield[™] Aerosol Conformal Coating. A coating that adjusts to the contours of the printed circuit board offering the highest level of protection against early failures due to pests such as geckos, mice, ants, and snakes. Also protects from environmental impacts of salt-laden mist/fog that can lead to corrosion failures..

Circuit Shield[™] is specifically formulated to protect circuit boards from corroding by having insulated and moisture resistance properties. Have confidence this product has the highest quality standards and passes the most arduous industry tests ensuring a top performing product you can trust.

When properly applied, Circuit Shield[™] is harmless to geckos and other pests and provides the needed insulating barrier to reduce damage to the circuit board. Geckos and other outdoor pests like the warmth provided on circuit boards. When these pests' nest or crawl on the board, they can cross various circuitries creating a path for a short circuit, typically killing the pest and potentially causing extensive damage to the unit.

GulfCoat[®] Circuit Shield[™] Coating is part of the Contractor Series, a product line developed for the HVAC professional.



EQUIPMENT APPLICATIONS

- HVAC/R Printed Circuit Boards (PCB)
- Elevator Control Panels
- Telephone Communication Boxes
- Outdoor Timers and Switches
- Traffic Lighting and Rail Crossing Control Panels
- Automotive, Heavy-Duty Truck & Off-Highway Equipment

CIRCUIT SHIELD[™] BENEFITS

- Excellent insulative dielectric strength
- Supports moisture resistance
- Able to handle thermal loading from heat sinks
- Superior adhesion to board and components

Protect Printed Circuit Boards From Corrosion!
GULFCOAT[®] CIRCUIT SHIELD[™] AEROSOL CONFORMAL COATING

TECHNICAL PROPERTIES

PROPERTY	TEST METHOD	PERFORMANCE
Salt Spray	ASTM B117	Exceeds 5000 hours
Direct Impact	ASTM D2794	Pass 160#
Pencil Hardness	ASTM D3363	HB-F
Cross Hatch Adhesion	ASTM D3359	5B
Humidity	ASTM D2247	1000 hours minimum
UV Resistance	ASTM D4587	1000 hours minimum
Mandrel Bend	ASTM D522M	Pass 1.4"
Dielectric Withstanding Voltage	IPC-CC-830C	Pass 1500V
Moisture & Insulation Resistance	IPC-CC-830C	Pass
Thermal Shock	IPC-CC-830C	Pass

SPECIFICATIONS

Circuit Shield™ Aerosol Conformal Coating should have a uniform dry film thickness of 10-36µm (0.4 -1.4 mils) and meet 5B rating for crosshatch adhesion per ASTM D3359. Corrosion durability shall be confirmed through testing to no less than 5,000 hours salt spray resistance per ASTM B117 using aluminum test coupons. Dielectric withstanding Voltage test shall pass at 1500 volts.

RESISTANCE TO CORROSION

Circuit Shield™ is a coating that conforms to the contours of the printed circuit board offering the highest level of protection against early failures due to pests such as geckos, mice, ants and snakes. Also protects from environmental impacts of salt-laden mist/fog that can lead to corrosion failures.

RESISTANCE TO UV DEGRADATION

Circuit Shield™ Aerosol Coating has UV inhibitors that form a protective barrier, reflecting sunlight and preventing ultraviolet rays from penetrating. Printed circuit boards (PCBs) are internal to the unit enclosed in cabinetry and are not exposed to UV light.

RESISTANCE TO MOISTURE

When properly applied, Circuit Shield™ provides a conformal coating encapsulating the circuit board to protect against moisture penetration.

WHAT IS A CONFORMAL COATING?

- A thin polymeric film which conforms to printed circuit board characteristics
- Non-conductive, protective coating layer applied to printed circuit boards
- Conformal coatings can protect against extreme or harsh environments
- Protects against short circuits from pests and corrosion from salt-laden coastal winds
- Adheres and insulates printed circuit board and components that populate the board

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