



## TECHNICAL DATA SHEET

GENERAL DESCRIPTION  
– SUBJECT TO CHANGES OR DEVIATIONS

### GulfCoat™ Circuit Shield™ Conformal Coating

#### PRODUCT DESCRIPTION

GulfCoat™ Circuit Shield™ Aerosol conformal coating is specifically designed to provide a protective layer for the protection of printed circuit board components to minimize the effects of corrosion and mitigate the problems caused by pests such as geckos, ants and mice. The products can be applied on-site or at your premises after equipment installation.

#### SPECIFICATIONS

HVAC printed circuit boards shall have GulfCoat™ Circuit Shield™ Aerosol coating spray applied. The spray coating process should ensure a uniform dry film thickness of 25-50 µm (1.0 -2.0 mils) and shall pass IPC-CC-830C standards for dielectric withstanding voltage @1500 volts, moisture & insulation resistance and thermal shock tests.

#### APPLICATIONS IDEALLY SUITED FOR GULFCOAT™ CIRCUIT SHIELD™

- 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



CORROSION

#### CORROSION RESISTANCE

GulfCoat is suitable for most environments and will maintain its appearance after many years exposure to the elements.



GECKO PROTECTION

#### PESTS

Insulative properties to protect printed circuit boards from crawling pests looking for the warmth of an energized circuit board.



UV PROTECTION

#### UV DEGRADATION

Built in enhanced UV inhibitors form a protective barrier throughout the paint film, reflecting sunlight and preventing ultraviolet rays from penetrating.

## TECHNICAL PROPERTIES

PROPERTY	TEST METHOD	PERFORMANCE
Salt Spray	DIN 53167/ASTM B117	Exceeds 2500 hours
Water Immersion	ASTM D870	1000 hours minimum
Pencil Hardness	ASTM D3363	HB-F
Cross Hatch Adhesion	ASTM D3359	5B
Humidity	ASTM D2247	500 hours minimum
UV Resistance	ASTM D4587	1000 hours minimum
Mandrel Bend (Flexibility)	ASTM D522M	Pass
Dielectric Withstanding Voltage	IPC-CC-830C	Pass
Moisture & Insultion Resistance	IPC-CC-830C	Pass
Thermal Shock	IPC-CC-830C	Pass

**PRODUCT NUMBER:**

IEA-OC-008

**PRODUCT NAME:**

GulfCoat™ Circuit Shield™

## RESISTANCE TO:

### RESISTANCE TO CORROSION

Corrosion and pests can reduce performance and ruin Printed Circuit Boards. A proper conformal coating for this equipment will enhance its ability to remain efficient throughout its life cycle.

### WHAT IS A CONFORMAL COATING?

- A thin polymeric film which conforms to printed circuit board characteristics
- Nonconductive, protective dielectric layer applied to printed circuit boards
- Conformal coatings are known to protect against extreme or harsh environments
- Protects against moisture, dust and chemicals
- Features chemical resistance
- Adheres well to printed circuit board and components that populate the board