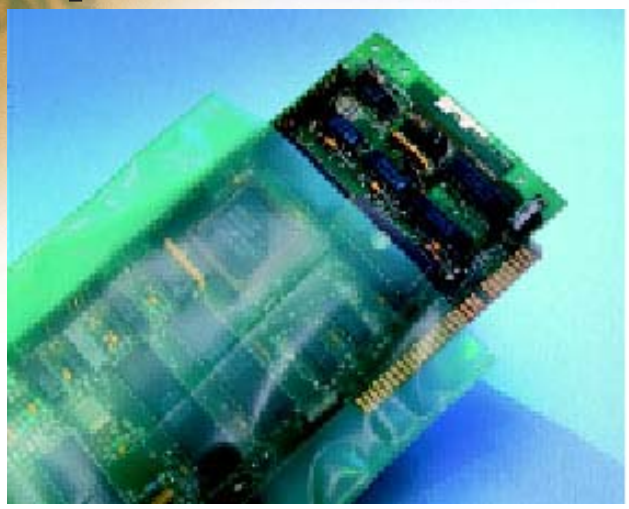
HIGH PERFORMANCE VpCI PACKAGING

VpCI®-125 BIO



PRODUCT DESCRIPTION

VpCI®-125 Bio has the unique ability to prevent corrosion and ESD damage. This film combines the latest plastic technology with the most effective corrosion protection for different metals and with the strong static dissipative properties. Cortec® VpCI® films and bags replace conventional rust preventatives such as oils and desiccants. You save even more because Cortec® VpCI® packaging eliminates all the degreasing or coating removal required in the past. Your product can now be used immediately. In addition, VpCI-125 Bio film is completely biodegradable, with no professional composting needed. Once disposed, VpCI-125 Bio degrades to water and carbon dioxide within 9 to 60 months.

VpCI®-125 Bio will effectively protect components from electrostatic discharge. VpCI®-125 Bio meets Type II requirements under MIL-PRF-81705D (Static Dissipative Packaging Materials).

The static dissipative properties of VpCI®-125 Bio are humidity independent; its unique composition does not require the presence of moisture to function.

VpCI®-125 Bio doesn't contain free amines, phosphates, silicones and other harmful materials. VpCI®-125 Bio is non-toxic.

ADVANTAGES

- 100% biodegradable
- Provides multimetal VpCI® protection to ferrous and non-ferrous metals
- Prevents ESD damage
- Humidity independent - does not require the presence of moisture on the surface to provide protection against triboelectric charge generation
- Does not affect optical properties
- Does not affect plastics used in electronic industry
- Does not contain free amines or toxic compounds
- Contains Vapor phase Corrosion Inhibitors (VpCI®) to protect void spaces and recessed areas
- Strong puncture resistant film

VARIETY OF SIZES

VpCI®-125 Bio bags are available in standard and custom-size bags in both heat-sealable and zipper closure form, film and tubing.

VpCI®-125 Bio bags are constructed of static dissipative polyethylene containing Vapor phase Corrosion Inhibitors in thicknesses from 2-6-mils (50-150 microns), with a maximum tube size of 50" (1.3 m). Standard bag sizes are 4" x 6" (10 x 15 cm), 6" x 8" (15 x 20 cm), 8" x 10" (20 x 25 cm), and 10" x 12" (25 x 31 cm).

PERFORMANCE

ESD Properties conforms to MIL-PRF-81705 D (Type II)

- Surface Resistivity (ASTM D 257) Between 1 x 10^5 and 10^{12} Ω/sq.
- Static Decay Rate - Less than 2 seconds (MIL-STD-3010, Test Method 4046)

Corrosion Inhibiting Properties conform to:

- MIL-PRF-22019D
- MIL-B-22020D

CORTEC CORPORATION
Environmentally Safe VCI/MCI® Technologies

APPLICATIONS

VpCI®-125 Bio film is recommended for packaging of static-sensitive and non-static sensitive components where triboelectric charge generation and corrosion are concerns. They are recommended for packaging of integrated circuits, printed circuit boards, PCB components, telecommunications equipment, electronic and electrical panels and enclosures.

PACKAGING AND STORAGE

VpCI®-125 Bio should be stored indoors at ambient temperatures, sealed in their original packaging. The shelf life is up to one year in original packaging. Film should be sealed to minimize air exchange.

METALS PROTECTED

VpCI®-125 Bio forms a monomolecular layer on metal substrates, which does not interfere with the physical or chemical properties of electronic components. VpCI®-125 Bio will provide corrosion inhibition to the following metals:

- Steel
- Copper, alloys
- Aluminum, alloys
- Brass
- Solder
- Silver
- Nickel
- Various plated substrates

For metals not specifically listed above, contact Cortec for information regarding their protection.

PHYSICAL PROPERTIES

Test Method	Direction*	Results
Tensile Strength (ASTM D 882-91), psi	MD TD	2697 2580
Elongation (ASTM D 882-91), %	MD TD	560 780
Elmendorf Tear Strength (ASTM D 1922-93), gf	MD TD	610 860
Puncture Resistance (ASTM D 3420-95), g	-	2016
Water Vapor Transmission Rate** (ASTM F 3429), g/100 in^2/200 Hr.	-	0.05
Oxygen Transmission Rate*** (ASTM D 3985), cc/100 in^2/24 Hr.	-	58.1

*MD – Machine Direction TD – Transverse Direction
**Test Conditions: 73°F (23°C), 100% RH
***Test Conditions: 73°F (23°C), 760 mmHg, 100% O_2

FOR INDUSTRIAL USE ONLY
KEEP OUT OF REACH OF CHILDREN
KEEP CONTAINER TIGHTLY CLOSED
NOT FOR INTERNAL CONSUMPTION
CONSULT MATERIAL SAFETY DATA SHEET FOR MORE INFORMATION

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