

# RIBS MVTR Bag

## Description:

A combination of two inventions that provide a reusable package with electrostatic protection (shielding), full MVTR protection and a self contained de-ionizer for corrosive gases. This laminated co-extruded film contains truly revolutionary materials. One layer of the RIBS inner liner is a polymer and conductive carbon matrix, while the exposed layer is a new static dissipative, non-sloughing, polymer with a backbone of reactive Copper providing a membrane over the carbon layer. The resulting film provides:

- (1) A pathway for electrical charges to flow through the membrane to the conductive layer.
- (2) A pathway for free organic ions to flow through the membrane to be absorbed by the carbon.
- (3) A pathway for free inorganic ions to react with and be neutralized by the Copper in the membrane

## Physical Properties

Color

Thickness

Tensile Strength

Puncture Resistance

Tear Initiation

Mullen Burst

Seam Strength

Optical Density

Heat Seal

Blocking

## Test Method

PST #001

ASTM D-882

FTMS 101C Method 2065

ASTM D-1004

ASTM D-774

ASTM D-882

None

## Specification

Silver / Copper

3.5 mil

25 Lb/in.

> 19 Lbs.

> 2.5 Lbs

100 Lbs

> 14Lbs

Photo Opaque

375°F .05 sec 60 PSI

None

## Electrical Properties

Surface Resistivity

Energy Test

MVTR

EMI Shielding

## Test Method

ASTM D-1003 15% RH

S11.31

ASTM -1240P100F 100 Sq in/24 Hrs

(mil 81705 Rev C)

## Specification

PE<10<sup>11</sup> ? Sq

PET<10<sup>6</sup> ? Sq

< 5 nJ

< .005 gms

> 45 dB between

1 & 10 GHZ

## Chemical Properties

Contact Corrosivity

## Test Method

FTMS 101C Method 3005

## Specification

Pass – No Corrosion

## Material Cleanliness

Ammonium

Bromide

Calcium

Chloride

Fluoride

Lithium

Magnesium

Nitrate

Nitrite

Phosphate

Potassium

Sodium

Sulfate

## Values

< 30 ng/cm<sup>2</sup>

< 30 ng/cm<sup>2</sup>

< 30 ng/cm<sup>2</sup>

< 30 ng/cm<sup>2</sup>

< 30 ng/cm<sup>2</sup>

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< 30 ng/cm<sup>2</sup>

## Test Method

Ion Test

ASTM D 5542-94

## Liquid Particle Count

Particle Count (Avg Inside)

## Values

< 40 count / cm<sup>2</sup>

## Test Method

NASA JPG 5322.1 Level 100

## Non Volatile Residue

Total Residue

## Values

< 1 µg/cm<sup>2</sup>

## Test Method

Std Method 2540C

## Volatile Organics, Headspace

Total Hydrocarbons

Total Outgassing

## Values

< 220 µg

< 220 µg

## Test Method

ASTM F1982-99

Method B