# Opening Length (L) STATSHIELD® ESD SHIELDING BAG METAL IN CONSTRUCTION STATIC SENSITIVE DEVICES. HANDLE ONLY AT ESD PROTECTED AREAS. MADE IN USA Weld Seal Width (W)

Side Weld Seals 3/8 in.

See reverse side for available sizes.

### A fundamental ESD control principle (see ANSI/ESD S20.20 Foreword):

ESD susceptible items should be transported and stored outside an Electrostatic protected Area enclosed in low charging, static shielding protective packaging.

## STATSHIELD® M/I SERIES

## Specifications:

**Electrical Properties** Typical Values Test Procedures/Method Surface Resistance:

Outer Surface  $<10^{11}$  ohms EOS/ESD S11.11  $<10^2$  ohms EOS/ESD S11.11 Aluminum Layer <10<sup>11</sup> ohms Inner Surface EOS/ESD S11.11 Static Shielding <25 nJ EOS/ESD S11.31 Charge Generation Teflon: 0.09 nC/sq. in. Modified Incline Plane Quartz: 0.01 nC/sq. in. Modified Incline Plane MIL-PRF-81705D, EIA 541

<30V

Capacitance Probe (to dissipate 1 KV)

## **Physical Properties**

Bag Thickness: Polyester Layer 0.5 Mils Static Dissipative PET film **ASTM D-2103** 10-25 Angstroms Aluminum Layer Polyethylene Layer 2.5 Mils Static Dissipative PE film **ASTM D-2103** Total Thickness 2.8 to 3.0 Mils **ASTM D-2103** Light Transmission (%) **ASTM D-1003** >40% (Tobias) Burst Strength (psi) FTMS 101K, Method 2065.1 >50 Heat Seal (lbs/in) >10 375°F. 1/2 sec 60 psi Seam Strength MIL-PRF-81705D Pass Tear Strength (lbs) **ASTM D-1004** >25

Puncture Resistance (lbs) >10 **ASTM D-2065** MVTR (gms / 100 in<sup>2</sup> / 24 hrs, 100°F) < 0.40 FTMS 101C/2065 OTR (cc / 100 in<sup>2</sup> / 24 hrs) <6.1 **ASTM D-1434** 

Abrasion Resistance Sutherland Abr. (.0000 Steel Wool) >100 cycles Outgassing

ASTM E595 Pass

#### **Chemical Properties**

Corrosion No effect on aluminum, copper, silver, Sn-Pb coated foil,

stainless steel, low carbon steel

Polycarbonate Capability, Yes

No Amines or N-Octanoic Acid Not present



#### Mixed Unsortable Plastic Scrap

Mixed unsortable plastic scrap shall contain assorted plastics of multiple grades that are co-extruded, bonded or laminated together which are unsortable into individual grades.

Desco's bags are recyclable



The bag's material meets the performance specification requirements of Mil-PRF-81705D, Type III. Bag is free of amines, N-octanoic acid, and heavy metals.

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# STATSHIELD® BAG, SHIELDING, METAL IN CONSTRUCTION

DESCO

DESCO WEST: 3651 WALNUT AVE., CHINO, CA 91710 WEB SITE: www.desco.com PHONE (909) 627-8178 FAX (909) 627-7449

DESCO EAST: 90 HUDSON RD, CANTON, MA 02021-1407 PHONE (781) 821-8370 FAX (781) 575-0172

DRAWING NUMBER 13405

DATE: 08/05

METAL IN BAG SIZES							
Item #	Size (WxL)	Item #	Size (WxL)	Item #	Size (WxL)	Item #	Size (WxL)
13405	3" x 5"	13446	6" x 16"	13475	10" x 14"	13510	14" x 18"
13415	4" x 6"	13447	6" x 18"	13476	10" x 16"	13515	15" x 18"
13416	4" x 8"	13450	6" x 30"	13485	10" x 24"	13520	18" x 18"
13420	4" x 24"	13457	7" x 15"	13488	10" x 26"	13524	18" x 24"
13425	4" x 30"	13460	8" x 10"	13490	10" x 30"	13528	20" x 24"
13430	5" x 8"	13465	8" x 12"	13495	11" x 15"	13530	24" x 24"
13440	6" x 8"	13466	8" x 16"	13500	12" x 16"	13531	24" x 30"
13443	6" x 12"	13468	8" x 24"	13505	12" x 18"		
13445	6" x 10"	13470	10" x 12"	13506	12" x 24"		
Packaged 100 per package							

**Desco ESD Bags Are Generally Reusable** 

The user must determine the suitability of ESD bags for particular applications and after one year from purchase date.

All ESD Shielding Bags that are ripped, torn, or scratched should be discarded. The Bag's protection is lost if there is an electrical path from the charge on the outside of the Bag to the inside layer and ESDS parts within. Scratching may compromise the Faraday Cage shielding protection of shielding bags so they will not perform their function of protecting stored or transported ESD susceptible devices from electrostatic charges and discharges.

From ANSI/ESD S20.20 paragraph 6.2.4.2. Packaging Guidance: "The objective of ESD protective packaging is to prevent a direct electrostatic discharge to the ESDS item contained within and allow for dissipation of charge from the exterior surface. In addition, the

packaging should minimize charging of the ESDS item in response to an external electrostatic field and triboelectrification. They may also lose static shielding properties by crumpling, puncturing and folding."

Some end users reuse a Statshield® Transparent Metal In ESD Shielding Bag up to six times and then discard.

Ideally, the user should test, auditing some percentage of the reused ESD Bags using test procedures outlined in ANSI EOS/ESD-DS11.11 - 1993 Surface Resistivity Standard, ESD-DS11.12 - 1996 Volume Resistance Measurements of Static Dissipative Planar Materials, and Shielding Materials EOS/ESD DS11.31 -1994. The Organization shall define ESD protective packaging for all ESD susceptible item material movement within Protected Areas, between job sites and field service operations. See ANSI/ESD S20.20 paragraph 6.2.4.1. Packaging Requirements.

ESD susceptible items shall be packaged in ESD protective packaging while not in a Protected Area. See ANSI/ESD S20.20 paragraph 6.2.3.1.

Statshield® bags are packaged 100 per package in an oversized shielding bag rather than a cardboard box. Therefore, our bags are not exposed to water vapors that will degrade the metallized shielding layer. Our bags have an additional layer of barrier protection because of our packaging.

Ideally, ESD bags should be stored in a dry, well ventilated room with a reasonably consistent temperature of 68°F (20°C) and be protected from exposure to direct sunlight. Ideally, ESD bags should not be stored in ultraviolet sunlight, moisture, or heat.

The user shall determine the suitability of the product for their intended use. Desco's only obligation shall be to replace such quantity of the product proved to be defective. See full Limited Warranty information at www.desco.com/warranty.htm.