



Side Weld Seals 3/8 in.

Proprietary film - available only from  
Desco Industries Inc.

See reverse side for available sizes.

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.

Statshield®, Statfree®, and Faraday® are Registered Trademarks of Desco  
Industries Inc.

#### ANSI/ESD S541 Section 6.2 Outside an EPA

"Transportation of sensitive products outside of an EPA  
shall require packaging that provides:

1. Low charge generation
2. Dissipative or conductive materials for intimate contact
3. A structure that provides electrostatic discharge  
shielding."



Made in America

## STATSHIELD® METAL-IN SERIES LEAD-FREE AREA ESD SHIELDING BAG



### Specifications:

#### Electrical Properties

Surface Resistance:

- Outer Surface
- Aluminum Layer
- Inner Surface

Static Shielding

Charge Generation

#### Typical Values

- <10E11 ohms
- <10E2 ohms
- <10E11 ohms
- <25 nJ
- Teflon: 0.09 nC/sq. in.
- Quartz: 0.01 nC/sq. in.

#### Test Procedures/Method

- ANSI/ESD S11.11
- ANSI/ESD S11.11
- ANSI/ESD S11.11
- ANSI/ESD S11.31
- Modified Incline Plane
- Modified Incline Plane
- MIL-PRF-81705D, EIA 541

Capacitance Probe (to dissipate 1 KV)

<30V

#### Physical Properties

Bag Thickness:

- Polyester Layer
- Aluminum Layer
- Polyethylene Layer
- Total Thickness

Light Transmission (%)

Heat Seal (lbs/in)

Seam Strength

Tear Strength (lbs)

Puncture Resistance (lbs)

MVTR (gms / 100 in<sup>2</sup> / 24 hrs, 100°F)

OTR (cc / 100 in<sup>2</sup> / 24 hrs)

Abrasion Resistance

Outgassing

Non-corrosive

0.5 Mils Static Dissipative PET film

10-25 Angstroms

2.5 Mils Static Dissipative PE film

2.8 to 3.0 Mils

>40% (Tobias)

>10

Pass

>25

>10

<0.40

<6.1

>100 cycles

Pass

Pass

ASTM D-2103

ASTM D-2103

ASTM D-2103

ASTM D-1003

375°F, 1/2 sec 60 psi

MIL-PRF-81705D

ASTM D-1004

ASTM D-2065

FTMS 101C/2065

ASTM D-1434

Sutherland Abr. (.0000 Steel Wool)

ASTM E595

MIL-STD-3010, M3005

#### 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

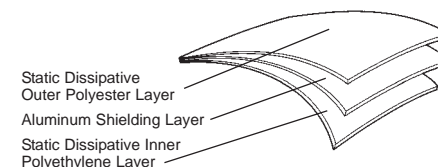
Not present

#### 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**



### STATSHIELD® BAG, SHIELDING, METAL IN CONSTRUCTION, GREEN

# DESCO

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

**DRAWING NUMBER**  
12780

**DATE:**  
12/06

## METAL IN BAG SIZES

Item #	Size (WxL)
12780	4" x 6"
12781	5" x 8"
12782	6" x 10"
12783	8" x 10"
12784	8" x 12"
12785	10" x 12"
12786	10" x 14"
12787	10" x 24"
12788	12" x 18"
12789	15" x 18"
12790	18" x 18"
12791	18" x 24"
12792	12" x 16"
Packaged 100 per package	

Special sizes and printing  
available upon request

## Desco ESD Bags Are Generally Reusable

For best results, bag inventory should be continually replenished. It is recommended that standard packs of bags should be stored in its original packaging in a climate controlled environment where the temperature ranges from 45 degrees F to 70 degrees F and relative humidity is 50%. Bags should not be stored in ultraviolet sunlight, moisture, or heat because the aluminum shielding layer could oxidize if exposed to these conditions.

We have no reports of degradation of ESD control properties of bags sealed in original standard pack packaging. Desco's Limited Warranty expressly warrants that for a period of one (1) year from the date of purchase, Desco products will be free of defects in material (parts) and workmanship (labor).

Before using and after one year from purchase date, users shall determine the suitability of the Statshield ESD Bags for their intended use. Users assume all risk and liability whatsoever in connection therewith. Mishandling or improper storage may render an ESD Bag unusable to perform its function. ESD Bags that are ripped, torn, or scratched should be discarded.

From ANSI/ESD S20.20 section 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 re-used ESD Bags using test procedures outlined in ANSI/ESD-S11.11 Surface Resistivity Standard, ANSI/ESD-S11.12 Volume Resistance Measurements of Static Dissipative Planar Materials, and Shielding Materials ANIS/ESD S11.31.

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.aspx](http://www.desco.com/Warranty.aspx).

**"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 section 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 section 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.

### RoHS Compliance Statement

None of the following materials are intentionally added in manufacturing this product: lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBB) or polybrominated diphenyl ethers (PBDE) as outlined in the Directive 2002/95/EC Article 4.1. See Desco Industries Inc. letter on-line at [Desco.com](http://Desco.com).