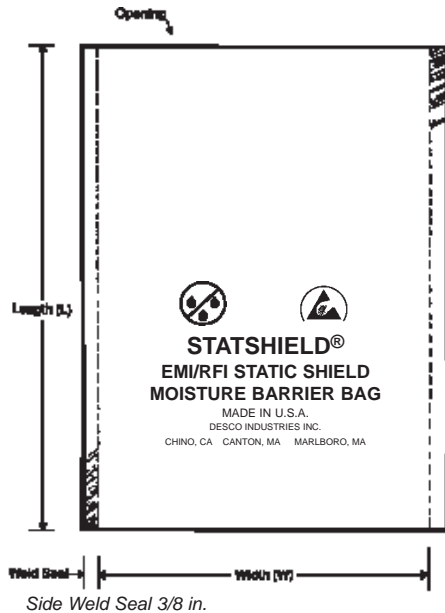


STATSHIELD® EMI/RFI MOISTURE BARRIER SHIELDING SERIES



Specifications:

Electrical Properties

Electrical Properties	Typical Values
Surface Resistivity (both surfaces @ 12%RH, Ω /sq)	<10E12
Resistivity, conductive metal layer (Ω /sq)	<10E2
EMI Shielding (dB between 1 and 10 GHz)	<45
Capacitive Probe Test (high voltage discharge, V)	<8
Charge Generation Teflon (nC/in ²)	-0.09
Quartz (nC/in ²)	+1.0

Physical Properties

Thickness (mils)	6.5
Tensile Strength (MD, psi)	7,930
Tensile Strength (TD, psi)	6,888
Tear Strength (MD, lb)	5.85
Tear Strength (TD, lb)	6.78
Elongation (MD, %)	98.5
Elongation (TD, %)	90.45
Burst Strength (psi)	>120
Puncture Strength (lb)	>30
Heat Seal Strength (Vetrod bar sealer, lb/in width)	>11
Heat Seal Temperature (°F)	325 (60 PSI @ 3 sec dwell)
Light Transmission (%)	<0.01
MVTR (gms / 100 in ² / 24 hrs, 100°F)	≤0.005
OTR	≤0.0005

Contact Corrosion

No evidence of corrosion, pitting, or etching of material Pass

Non-corrosive


Chemical Properties

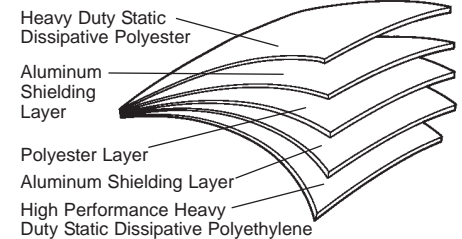
Polycarbonate compatible: Contains no Amines, Amides, or N-Octanoic Acid.

Shelf life of bags is minimum one year in normal indoor storage conditions. Because we package all of our Statshield® bags in an oversized shielding bag rather than a cardboard box, our bags are not exposed to moisture that will degrade the metallized shielding layer. Our bags have an additional layer of barrier protection because of our packaging.

See reverse side for available sizes.

Test Procedures/Method

ANSI/ESD S11.11	 Made in America
ASTM D257	
ANSI/ESD S11.31	
EIA Std 541/Appendix E, 1kV Discharge	
Modified incline plane	
Modified incline plane	
ASTM D2103	
ASTM D882-91 Method A	
ASTM D882-91 Method A	
ASTM D1004-94, notched	
ASTM D1004-94, notched	
ASTM D882-91 Method A	
ASTM D882-91 Method A	
FTMS 101-C, Method 2007-1a	
FTMS 101-C, Method 2065.1	
ASTM D1876-93	
ASTM D1033-92	
ASTM F1249-90	
ASTM D3985 @ 100% Oxygen, 100 in ² /24 hr, 77°F, 0%: 90% R.H.	
FTMS 101C, Method 3005	
MIL-STD-3010, M3005	



NOTE: The complete dry package concept of packaging for electronics requires three elements:

- MOISTURE BARRIER BAG - To Protect
- DESICCANT - To Absorb Moisture
- INDICATOR - To Monitor Performance

For detailed instructions ask for Technical Bulletin P-2031 "Application Instructions for Moisture Barrier Bags."

DESICCANT PACK INFORMATION

Desiccant packs meet MIL-D-3464. Packs meet Type I and Type II criteria for dust-free packaging. RULE-OF-THUMB - use 1/2 unit for every 45 square inches of bag area.

13850	1/2 unit	Pail of 550
13852	1 unit	Pail of 300

HUMIDITY MONITOR INFORMATION

13870 Humidity Monitor. Can of 100 2" x 3" blotting paper cards that indicate 10, 20, 30 and 40% relative humidity with a color comparison bar. Meets MIL-I-8835.

Film complies with the electrical and physical requirements of EIA-541, EIA-583, EIA-625, and Mil-PRF-81705D Type I

This material is used in commercial applications only

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

DESCO

STATSHIELD® EMI/RFI, SHIELDING, MOISTURE BARRIER, 6.5 mil

DESCO WEST: 3651 WALNUT AVE., CHINO, CA 91710 WEB SITE: 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
13760

DATE:
6/07

EMI/RFI STATIC SHIELDING BAG SIZES

Item #	Size (WxL)	Item #	Size (WxL)	Item #	Size (WxL)
13760	4" x 6"	13764	10" x 12"	13768	15" x 18"
13761	5" x 8"	13765	10" x 24"	13769	18" x 18"
13762	6" x 10"	13766	10" x 30"	13770	18" x 24"
13763	8" x 10"	13767	12" x 16"		
Packaged 100 per package					

"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.

"...it is important to take possible temperature exposure into account when shipping electronic parts. It is particularly important to consider what happens to the interior of a package if the environment has high humidity. If the temperature varies across the dew point of the established interior environment of the package, condensation may occur. The interior of a package should either contain desiccant or the air should be evacuated from the package during the sealing process. The package itself should have a low WVTR." (ESD Handbook TR20.20 section 5.4.3.2.2)

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.

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 online at Desco.com.