

Side Weld Seals 3/8 in.

See reverse side for available sizes.

A fundamental ESD control principle (see IEC 61340-5):
ESD susceptible items should be transported and stored outside an Electrostatic protected Area enclosed in low charging, static shielding protective packaging.

The bag's material meets the performance specification requirements of Mil-PRF-81705D. Bag is free of amines, N-octanoic acid, and heavy metals. Statshield®, Statfree®, and Faraday® are Registered Trademarks of Desco Industries Inc.

STATSHIELD® M/I SERIES



Specifications:

Electrical Properties

Surface Resistance:	
Outer Surface	<10 ¹¹ ohms
Aluminum Layer	<10 ² ohms
Inner Surface	<10 ¹¹ ohms
Static Decay	<0.05 sec
Static Shielding	<25 nJ
Charge Generation	Teflon: 0.09 nC/sq. in. Quartz: 0.01 nC/sq. in.
Capacitance Probe (to dissipate 1 KV)	<30V

Typical Values

Test Procedures/Method

EOS/ESD S11.11
EOS/ESD S11.11
EOS/ESD S11.11
MIL-PRF-81705D; FTMS 101C, M4046.1
EOS/ESD S11.31
Modified Incline Plane
Modified Incline Plane
MIL-PRF-81705D, EIA 541

Physical Properties

Bag Thickness:		
Polyester Layer	0.5 Mils Static Dissipative PET film	ASTM D-2103
Aluminum Layer	10-25 Angstroms	
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 (%)	>40% (Tobias)	ASTM D-1003
Burst Strength (psi)	>50	FTMS 101K, Method 2065.1
Heat Seal (lbs/in)	>10	375°F, 1/2 sec 60 psi
Seam Strength	Pass	MIL-PRF-81705D
Tear Strength (lbs)	>25	ASTM D-1004
Puncture Resistance (lbs)	>10	ASTM D-2065
MVTR (gms / 100 in ² / 24 hrs, 100°F)	<0.40	FTMS 101C/2065
Abrasion Resistance	>100 cycles	Sutherland Abr. (.0000 Steel Wool)
Outgassing	Pass	ASTM E595

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

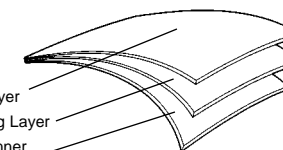


Mixed Unsortable Plastic Scrap

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.

Charleswater Europe's bags are recyclable

Static Dissipative
Outer Polyester Layer
Aluminum Shielding Layer
Static Dissipative Inner
Polyethylene Layer



CHARLESWATER Europe

Statshield® Bag, Shielding, Metal In Construction, Zipper

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Drawing Number
90600.E

DATE:
06/01

Metal In Bag Sizes W x L (mm)

Item #	Size	Item #	Size	Item #	Size	Item #	Size
90600	75 x 125	90610	150 x 760	90620	255 x 610	90628	380 x 455
90602	100 x 150	90612	200 x 255	90622	280 x 380	90630	455 x 455
90604	100 x 760	90614	200 x 305	90624	305 x 405	90632	455 x 610
90606	125 x 200	90616	255 x 305	90626	305 x 455		
90608	150 x 255	90618	255 x 355	90627	355 x 455		

Use Charleswater Europe ESD Bags to meet IEC 61340 5-1 paragraph 6 Protective Packaging states, "The primary functions of protective packaging outside the ESD Protected Area are to:

- limit tribo-electric charging;
- provide shielding against electrostatic fields and discharges.
- The packaging shall be capable of providing charge drainage to EPA ground when brought into an EPA."

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. Charleswater Europe's only obligation shall be to replace such quantity of the product proved to be defective. See full Limited Warranty information at www.charleswater.co.uk/warranty.htm.

Charleswater Europe 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 re-used 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.