

#### **PRODUCT**

## Static Shielding Bag -Open Top

**TECHNICAL DATASHEET** 

These open top, easy access static shielding bags are designed to protect sensitive electronic devices against ESD during transit and whilst kept in storage. UGS: 001-006-00000

SHIELDING BAGS



# FEATURES

- Metal "Faraday cage" layer shields products inside from electrical energy and prevents static build-up
- Four layer protection guards against charges inside and out
- Semi transparent for easy content identification
- Surface resistance of  $10^6$ - $10^{10}~\Omega$
- Conforms to EIA 625, EIA 541, ANSI/ESD STM 11.31
- Custom sizes and print available on request
- Suitable for packing electronic products which are sensitive to static, eg PCBs, electronic components etc

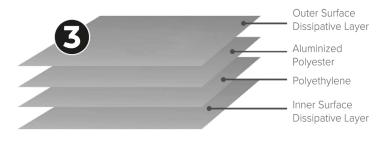
#### 1) CONFIGURATION(S)

Our bags are available in custom sizes or in several industry standard sizes. Bags are offered in a 2-seal configuration and bottom fold, with our standard flexographically printed artwork. Please note any bags that are longer than 24" will have a 3rd seal along the bottom edge.

#### 2) BAG ARTWORK

Our static shielding bags are produced with the shown artwork as standard. For further information on bespoke/printed orders, please contact one of our sales team.





Our static shielding bags are constructed in four layers, consisting of a static dissipative polyester outer layer and a static dissipative polyethylene inner layer with a center metallised shield layer.

Our bags are manufactured from industry approved polyester and polyethylene laminates. The polyester dielectric works with the metal layer to provide a Faraday effect, the metal layer preventing penetration from damaging electrostatic fields.

The specially processed polyethylene keeps tribocharging to a minimum.

#### **TEST CONDITIONS**

The following results were taken under the following environmental test conditions: Temperature: 23°C / Humidity: 12% RH.

ITEM	TEST METHOD	TYPICAL VALUE	
Film thickness	Micron Meter	3Mil 75 micron	
Metal layer optical transmission	ASTM D1003 (TOBIAS)	40% +/- 5% optical density	
Surface resistance	ANSI/ESD STM 11.11 - 2021	10 <sup>6</sup> - 10 <sup>10</sup> Ω	
Time for static removal	FTMS 101B Method 4046 - 5000-0V	<.0.03 Sec	
Static shielding - Energy penetration	ANSI/ESD-STM-11.31 - 2018	<20 nJ	
Static shielding - Capacitive probe	ANSI / EIA 541 Appendix E	<25V	
Friction static	ANSI / E1A 541 Appendix C Avg.	Triboelectric nanocoulombs Quartz +0.01 Tefion -0.09	
Anti-erosion	FTMS 101C Method 3005	No visible spots	
Tensile strength	ASTM D882-91, Method A	MD 6530 psi TD 5800 psi	
Tear initiation	ASTM D1004 -94-Notched	MD 2.5 lbs./in TD 2.0 lbs	
Puncture resistance	ASTM D3420	>10 psi	
Tear resistance	ASTM D882	>8 psi	
Burst strength	FTMS 101 C Method 2065.1	50 psi nominal	
Heat seal temperature	-	250 - 375 °F	
Heat seal pressure	-	30-70 PSI	
Heat seal strength	(D1876-93) Vertrod bar sealer/heat	>12 lbs/in width (room temperature)	
Breaking elongation rate	ASTM D882-91 Method A	MD 80% TD 85%	



### TEST CONDITIONS

The shielding bag is tested in accordance with the relevant test standard and requirements.

TEST ITEM	TEST METHOD	MEASURED EQUIPMENT(S)	MDL
Lead (Pb)	IEC 62321:2008 Ed.1 Sec.8	ICP-OES	2mg/kg
Cadmium (Cd)	IEC 62321:2008 Ed.1 Sec.8	ICP-OES	2mg/kg
Mercury (Hg)	IEC 62321:2008 Ed.1 Sec.7	ICP-OES	2mg/kg
Hexavalent Chromium (Cr(VI))	IEC 62321:2008 Ed.1 Annex C	UV-Vis	2mg/kg
Polybrominated Biphenyls (PBBs)	IEC 62321:2008 Ed.1 Annex A	GC-MS	5mg/kg
Polybrominated Diphenyl Ethers (PBDEs)	IEC 62321:2008 Ed.1 Annex A	GC-MS	5mg/kg