



PRODUCT

Static Shielding Bag - Grip Seal

These grip seal, easy access static shielding bags are designed to protect sensitive electronic devices against ESD during transit and whilst kept in storage.



2) BAG ARTWORK

Our static shielding bags are produced with the following sample artwork as standard. For further information on bespoke/printed orders, please contact one of our sales team. Please note there is a MOQ of 20,000 bags on all custom printed bags.

UGS : 001-007-00000

ZIPPED SHIELDING BAGS

FEATURES

- Metal “Faraday cage” layer shields products from electric energy inside 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} Ohms
- Conforms to EIA 625, EIA 541, ANSI/ESD S-20.20 and EN61340-51-ESD and EN 61340-53-ESD
- Custom sizes and print at available on request
- Suitable for packaging 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. Our bags can also be personalised with your company logo on any bespoke orders.



**TORTORELLA
& PARTNERS**

24 Allée Isaac Newton, 33127 SAINT-JEAN-D'ILLAC
Siren : 849 350 954 R.C.S. Bordeaux - Capital social : 10 000 €



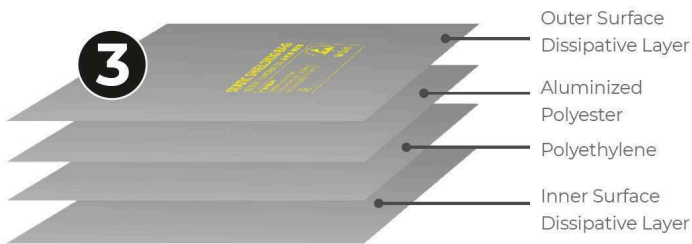
[tortorellapartners.com](https://www.tortorellapartners.com)



3) CONSTRUCTION

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 centre metalised shield layer.

Our bags are manufactured from industry approved polyester and polyethelene 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 STANDARD	RESULT
Film thickness	Micron Meter	3Mil 75 micron
Metal layer optical transmission	ASTM D1003 (TOBIAS)	40% +/- 5% optical density
Surface resistivity	STM 11.11	10 ⁶ -10 ¹⁰
Time for static removal	FTMS 101B Method 4046 - 5000-0V	<.003 Sec
Static shielding - Energy penetration	ESD-STM-11.31 @12% R.H.	<20 nJ
Static shielding - Capacitive probe	EIA 541 Appendix E	<25V
Friction static	E1A541 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%
Appearance	-	No delamination, burst seal, wrinkle, warp, break, foreign particle adherence, air bubble beyond sealing ≤3mm





TEST CONDITIONS

The shielding bag is tested 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

- Other sizes available upon request, minimum order quantities apply
- All of GSC products are RoHS 3 and REACH compliant
- Supports EN 61340-51-ESD and EN 61340-53-ESD and can be used as part of an ANSI/ESD S20.20

