Product Data Sheet

3M™ Metal-Out Static Shielding Bag 2100R/2110R

The transparent, puncture resistant metal-out static shielding bag is designed to provide a static safe environment for sensitive electronic devices. The metal layer is positioned near the outer surface to help reduce voltage retention and enhance static decay. Bags are printed with and ESD warning symbol and a lot code for traceability. Open Top (2100R) and ZipTop (2110R) styles are available. The bags are heat sealable.

3M Static Shielding Bags are manufactured from a top coat, metal, polyester, polyethylene laminate. The proprietary top coating is designed to protect the metal layer. Polyester dielectric, in concert with the metal layer, is intended to provide shielding of Electrostatic Discharge (ESD) and to help minimize the penetration of electric field.

The bags are tested to meet or exceed certain electrical and physical requirements of ANSI/ESD S541 and to be ANSI/ESD S20.20 program compliant. Bags are RoHS Compliant* and lead-free**.



Polyethylene

Physical	Typical Value	Testing Method
Tensile Strength	8000 PSI, 55 MPa	ASTM D882
Puncture Resistance	24 lbs, 106 N	MIL-STD-3010C Method 2065
Seal Strength	18 lbs, 80 N	ASTM D882
Thickness	3.2 mils, .081 mm +/-15%	MIL-STD-3010C Method 1003
Marking Adhesion	Pass	IPC-TM-650 2.4.1
Transparency	37%	Tobias
Electrical	Typical Value	Testing Method
ESD Shielding	<10 nJ	ANSI/ESD STM11.31
Surface Resistance - Interior	<1x10 ¹¹ ohms	ANSI/ESD STM11.11
Surface Resistance - Exterior	<1x10 ⁶ ohms	ANSI/ESD STM11.11
Static Decay	< 2 seconds	ETS 406D
Charge Retention	<100 volts	CPM – 3M TP.21XX
Cleanliness	Typical Value	Testing Method
Silicone	Not Detected	FTIR
Heat Sealing Conditions	Typical Value	
Temperature	375°F, 190°C	
Time	0.5 – 3.5 seconds	
Pressure	30 - 70 PSI, 206 - 482 KPa	

This product is intended for commercial use only. This product is not on the Qualified Product Listing under the Defense Standardization Program.



3M™ Metal-Out Static Shielding Bag 2100R/2110R

Metal-Out Static Shielding Bags 2100R, Open Top

Dimensions (W x L in.)	Part No.	Dimensions (W x L in.)	Part No.	Dimensions (W x L in.)	Part No.
3 x 5	21035	8 x 10	21810	15 x 18	2101518
4 x 4	21044	8 x 12	210812	16 x 24	2101624
4 x 6	21046	10 x 12	2101012	18 x 18	2101818
4 x 26	210426	10 x 14	2101014	18 x 24	2101824
5 x 8	21058	11 x 15	2101115	24 x 24	2102424
6 x 8	21068	12 x 16	2101216	24 x 30	2102430
6 x 10	210610	12 x 18	2101218	24 x 36	2102436
8 x 8	21088	14 x 18	2101418		

Metal-Out Static Shielding Bags 2110R, ZipTop

Dimensions (W x L in.)	Part No.	Dimensions (W x L in.)	Part No.	Dimensions (W x L in.)	Part No.
3 x 5	21135	6 x 8	21168	10 x 14	2111014
4 x 4	21144	6 x 10	211610	10 x 26	2111026
4 x 6	21146	8 x 10	211810	11 x 15	2111115
4 x 26	211426	8 x 12	211812	18 x 24	2111824
5 x 8	21158	10 x 12	2111012		

^{*} RoHS 2011/65/EU Compliant means that the product or part does not contain any of the substances in excess of the maximum concentration values ("MCVs") in EU RoHS Directive 2011/65/EU. The MCVs are by weight in homogeneous materials. This information represents 3M's knowledge and belief, which may be based in whole or in part on information provided by third party

In the event any product is proven not to conform with 3M's Regulatory Information, then 3M's entire liability and Buyer's exclusive remedy will be in accordance with the Warranty section.

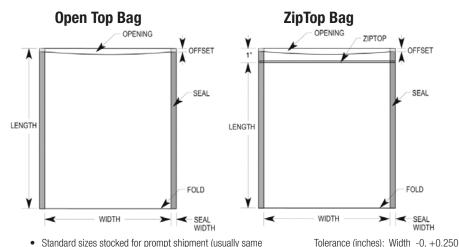
**Lead-free means that the product has less than 2 ppm of lead when tested by ICP-AES, with reference to EPA method



Electronic Solutions Division Static Control Products

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- Standard sizes stocked for prompt shipment (usually same
- Width is measured from inside seam to inside seam.
- Length is measured from the top edge to the bottom fold.
- Opening is in the "width" dimension.
- Custom bag sizes, custom printing, and custom hot stamping are available.
- Most sizes are packed 100 per case.
- Small sizes are packed 500 or 1.000 per case.

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Length +/- 0.125 Offset 0 to 0.250

Seal width +/- 0.125

Warranty; Limited Remedy; Limited Liability.

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SCS:

<u>2100R 04X06 2100R 08X08 211810 2100R 03X05 21135 21158 21144 2101216 2101824 2100R 10X14 21044 2100R 11X15 2101624 2111115 2100 12X18 211812 2101518 2111012 210812 210810 21058 21168 210610 211610 2100R 06X08 2100R 10X12 2101818 21146</u>