

## SB-2000

### MOISTURE BARRIER BAG-ALUMINIZED

Ground Zero's SB-2000 Moisture Barrier Bag is designed for dry packaging of electronic devices and uses the first structure SB-2000 bags are made from multiple layers of metallized polyester and dissipative polyethylene. Bags protect SMD's from moisture and static damage. Flexible structure is easy to vacuum seal. Coded for QC traceability.

### Standards

Meets electrical and physical requirements of EIA 583, EIA 541, EIA 625, and EOS/ESD Standards.

### Specifications

Physical Properties:	Typical Values
MVTR(g/100 sq.in./24 hrs)	<.02 (ASTM F 1249)
Puncture Resistance	> 20 lbs (FTMS 101 MTH 2065)
Thickness	3.6 mils (SCC 008)
Tensile Strength	40 lb( ASTM D882)
Seam Strength	Pass
Heat Sealing Conditions:	
Temperature	300°F - 400°F
Time	0.6 - 4.5 seconds
Pressure	30 - 70 PSI
Electrical Properties:	
Surface Resistivity / Resistance	ASTM D257 or ANSI/ESD STM11.11
Interior	<10 <sup>12</sup> ohms/square or <10 <sup>11</sup> ohms
Exterior	<10 <sup>12</sup> ohms/square or <10 <sup>11</sup> ohms
Metal	100 ohms
Static Shielding	< 20 volts (EIA 541)
Static Shielding	< 10 nJ (EOS/ESD S11.31)
EMI Attenuation	45 dB
Static Decay	< 0.03 seconds (FTMS 101 MTH 4046)
Non-Corrosive	Pass (FTMS 101 MTH 3005)
Outgassing	Pass (ASTM E595)



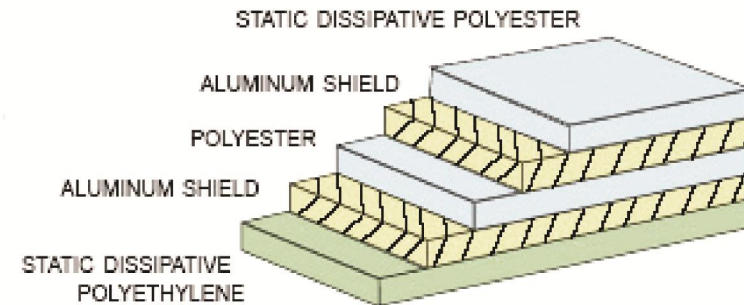
SB-2000

Moisture Barrier Bag with Humidity Indicator Card and Desiccant



#### Material Structure

Multiple layers of metallized polyester provide puncture resistance and moisture barrier for this economical dry package. This highly reliable material meets or exceeds MVTR and EMI/RFI/Static Shielding requirements of EIA 583, Type I for static safe, moisture barrier packaging.



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### MOISTURE BARRIER BAG-ALUMINIZED

W"x L"	W"x L"	W"x L"
3 x 5	8 x 10	14 x 30
4 x 6	8 x 12	15 x 18
4 x 24	10 x 12	16 x 18
5 x 30	10 x 20	17 x 19
6 x 8	10 x 24	18 x 18
6 x 10	10 x 30	18 x 24
6 x 24	12 x 16	6 x 30
12 x 18		

- All standard sizes in-stock/same day shipment.
- 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 1000 or 500 per case.

#### How Moisture Barrier Bags Work

Moisture barrier bags work by enclosing a device with a metal or plastic shield(s) that have a high resistance to moisture vapor permeation. Dry devices are placed inside this shield, and the moisture-laden air is evacuated. Desiccant filled pouches scavenge the remaining moisture from the bag's interior. Moisture that penetrates the bag is also entrapped by the desiccant. Humidity indicating cards report the effectiveness of the package upon device use. A label on the bag indicates the amount of exposure time devices are allowed prior to use, and the drying (re-baking) time and temperature if the exposure time is exceeded.

As the barrier property improves, the Moisture Vapor Transmission Rate (MVTR) decreases. Bags with lower MVTR provide better barrier. Aluminum foil provides the best MVTR of about 0.0003. Multiple layers of Foil Polyester can provide 0.02 to about 0.005. Puncture Resistance is an important feature for barrier bags. Sharp tray edges may tear through bags with low puncture resistance.

