

3M™ Moisture Barrier Bag Dri-Shield 2000

Moisture Barrier Bag ~ Aluminized

The 3M Dri-Shield 2000 Moisture Barrier Bag is designed for dry packaging of electronic devices. Dri-Shield 2000 bags are made from multiple layers of metallized polyester and dissipative polyethylene. Bags help protect SMD's from moisture and static damage. Flexible structure is easy to vacuum seal. Coded for QC traceability. These bags are tested to meet or exceed certain electrical and physical requirements of ANSI/ESD S541, EIA 625, and to be ANSI/ESD S20.20 program compliant.



Moisture Barrier Bag with Humidity Indicator Card and Desiccant



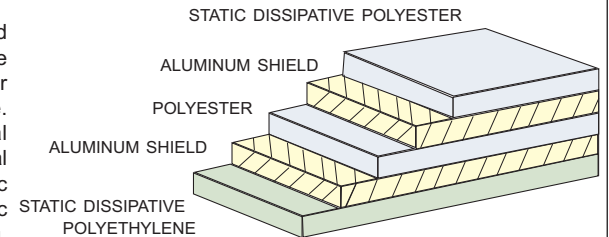
Specifications

Physical Properties:	Typical Values	Test Method*
MVTR	<.02 g/100 sq.in./24 hrs	ASTM F 1249
Puncture Resistance	> 20 lbs	MIL-STD-3010 2065
Thickness	3.6 mils**	MIL-STD-3010 1003
Tensile Strength	8700 PSI	ASTM D882
Seal Strength	>12 lbs	ASTM D882
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 ¹² ohms/square	or <10 ¹¹ ohms
Exterior	<10 ¹² ohms/square	or <10 ¹¹ ohms
Metal	100 ohms	
Static Shielding	< 20 volts	EIA 541
Static Shielding	< 10 nJ	ANSI/ESD STM11.31
EMI Attenuation	45 dB	
Static Decay	< 2 seconds	MIL-STD-3010 4046
Silicone or Amine Content	Not detected	FTIR
	** tolerance +/-15%	

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 commercial MVTR and EMI/RFI/Static Shielding requirements for static safe, moisture barrier packaging.



Important Notice

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*This product is not on the Qualified Product Listing under the Defense Standardization Program.

See 3M Data Sheets for these related items:

- Humidity Indicator Cards (HIC's)
- Desiccant
- Vacuum Sealers

P R O D U C T D A T A S H E E T

Dri-Shield 2000 Moisture Barrier Bag ALUMINIZED

PRODUCT
MOISTURE BARRIER BAG, ALUMINIZED

ITEM NUMBER
700(W")(L")

DATASHEET
1102-A
98-0799-1075-2

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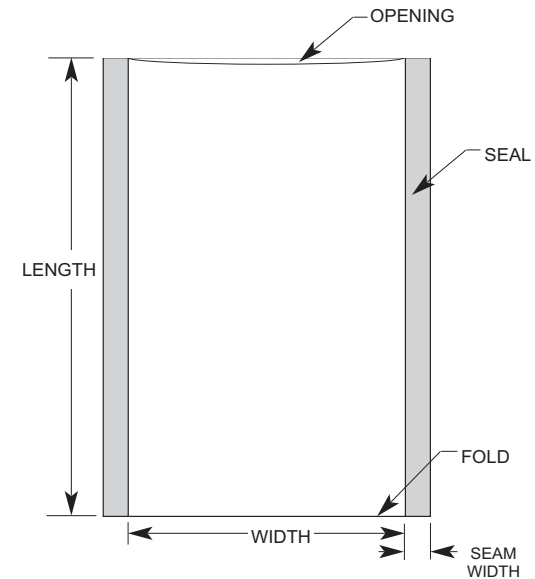
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W"x L"	P/N	W"x L"	P/N	W"x L"	P/N
3 x 5	70035	8 x 10	700810	14 x 30	7001430
4 x 6	70046	8 x 12	700812	15 x 18	7001518
4 x 24	700424	10 x 12	7001012	16 x 18	7001618
5 x 30	700530	10 x 20	7001020	17 x 19	7001719
6 x 8	70068	10 x 24	7001024	18 x 18	7001818
6 x 10	700610	10 x 30	7001030	18 x 24	7001824
6 x 24	700624	12 x 16	7001216		
6 x 30	700630	12 x 18	7001218		

- 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.

3M Dri-Shield 2000



How Moisture Barrier Bags Work

Moisture barrier bags work by enclosing a device with a metal or plastic shield(s) that has 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 Aluminized 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.

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