

ADE, Inc.

# TECHNICAL DATA

Chicago, IL

*Product*

*Description*

**CANCEL® 3 Metalized Amine Free ¼” REINFORCED CELL CUSHIONING MATERIAL**

*Description:*

**Cancel 3 Metalized Amine Free Cushioning is a static free ¼” thick material formulated with an antistatic additive suitable for stress sensitive polycarbonate packaging applications. The material is reinforced with a metalized composit top film, designed to provide ESD and EMI shielding along with physical protection.**

*Composition and Structure:*

*Cushioning:*

- **Low and linear low density polyethylene (LDPE and LLDPE).**
- **Proprietary internal Amine Free antistatic additive.**
- **Comprised of adjoining tapered cells that are hexagon shaped on the film (flat) side and rounded on the other.**

*Top film*

**2.0 mil composit of a 0.5 mil vacuum metalized (aluminum) polyester laminated to a 1.5 mil static dissipative polyethylene. The metalized side of the polyester is laminated “in” to the polyethylene. The polyethylene side is laminated to the Cancel and the exposed polyester side is coated with a static dissipative compound.**

*Put-ups:*

<u>Description</u>	<u>Put-up</u>
<b>Rolls</b>	<b>Poly bagged bundles. 300 ft. long, by 48” wide, by 35” diameter.</b>
<b>Sheets</b>	<b>Corrugated cases typically containing 0.5 MSF of sheets/case.</b>
<b>Die-cuts</b>	<b>Corrugated cases. Quantity dependant on shape and size.</b>

*Product Tolerances:*

<u>Form</u>	<u>Description</u>	<u>Dimension</u>
<b>Rolls</b>	<b>Slit width</b>	<b>Min. 2” to max. 48”</b>
<b>Sheets</b>	<b>Size</b>	<b>Min. 3” by 6”</b>
<b>Die-cuts</b>	<b>Shape and size</b>	<b>As specified</b>

*Dimensional Tolerances:*

<u>Description</u>	<u>Rolls</u>	<u>Sheets</u>	<u>Die-cuts</u>
<b>Length</b>	<b>+/- 5%</b>	<b>+/- ¼”</b>	<b>+/- 1/8”</b>
<b>Width (slit rolls)</b>	<b>+/- ¼”</b>	<b>+/- ¼”</b>	<b>+/- 1/8”</b>
<b>Width (48” bundles)</b>	<b>- 1/4”, + ½”</b>		
<b>Thickness</b>	<b>+/- 1/32”</b>	<b>+/- 1/32”</b>	<b>+/- 1/32”</b>

*Physical Properties (Top Film):*

<u>Property</u>	<u>Method</u>	<u>Typical Result</u>
<b>Thickness</b>	<b>ASTM D2103</b>	<b>2.0 Mils</b>
<b>Tensile Strength</b>	<b>ASTM D882</b>	<b>&gt; 15 lbs.</b>
<b>Puncture Resistance</b>	<b>FTMS 101C, Method 2065</b>	<b>&gt; 8 lbs.</b>
<b>Transparency</b>	<b>ADE, Inc. # G216</b>	<b>&gt; 40%</b>

*Physical Properties (finished Product):*

<u>Property</u>	<u>Method/Requirement</u>	<u>Typical Results</u>
Workmanship	ADE, Inc./must comply	complies
Heat Sealability	ADE, Inc./ 4 lb weight	no separation
Polycarbonate Compatibility	EIA 564	up to 158° F

*ESD Properties (Finished Product):*

<u>Property</u>	<u>Method</u>	<u>Typical Value</u>
Surface Resistivity	ASTM D 257	
Cell and film sides		< 1.0 X 10(12) ohms/square
Buried metal layer		1.0 X 10 (2) ohms/square
Surface Resistance	STM 11.11	< 1.0 X 10 (11) ohms
Capacitive Probe	EIA 541 (200pf,1.5K ohms)	4.0 to 6.0 volts
RFI Shielding	Mil-STD-285(@ 390 mHz)	4 dB
	(@ 27 mHz)	10 dB

*Compliance Issues:*

**Based on information supplied by our suppliers and strict adherence to our manufacturing procedures, we can state that Cancel ® 3 Metalized AF Cushioning material does not contain Cadmium, Lead, Mercury, Hexavalent Chromium, Polybrominated Biphenyl (PBB) or Polybrominated Diphenyl (PBDE) materials that are banned per RoHS (EU) Directive and CONEG (USA) Regulations.**

*Effects of Solvents and Ultraviolet Rays:*

**Cancel 3 Metalized AF Cushioning material should not be exposed to solvents such as alcohols, ketones or hydrocarbons. Contact with these solutions will remove the conductive surface. Exposure to ultraviolet rays of sunlight will cause fading of the color but will not materially affect the antistatic properties.**