

Product Description: Stat-Rite® M809 is a static dissipative **Acrylic** alloy. Stat-Rite M809 utilizes the patented Stat-Rite inherently dissipative polymer (IDP) alloy system to provide clean, permanent ESD protection. Stat-Rite® IDP alloys provide consistent static dissipation even when extruded, injection molded or thermoformed into components.

Properties (typical)	M809	Units	Test Method
Host Polymer	Acrylic		
Filler	IDP Alloy		
Color	Translucent		
Specific Gravity	1.11	g/cc	ASTM D-792
Electrical Properties:			
Surface Resistivity	1×10^{10}	Ω /square	ASTM D-257 (50% R.H.)
Surface Resistance	9×10^9	Ω	ESD S11.11 (12% R.H.)
Volume Resistivity	1×10^{10}	Ω -cm	ASTM D-257
Static Decay Rate +5000 V to 50 V -5000 V to -50 V	.03 .04	Seconds	FTMS-101C (12% R.H.)
Mechanical Properties:			
Tensile Strength @ Break	3800 (27)	psi (MPa)	ASTM D-638
Tensile Elongation, Break	27	%	ASTM D-638
Tensile Modulus	219,000 (1510)	psi (MPa)	ASTM D-638
Flexural Modulus	210,000 (1450)	psi (MPa)	ASTM D-790-90
HDT @ 66 psi	167 (75)	°F (°C)	ASTM D-648
HDT @ 264 psi	153 (67)		
Notched Izod Impact	2.6 (140)	ft-lb / in (J/m)	ASTM D-256-92
These are typical values and should not be used for establishing product specifications. Contact Lubrizol Advanced Materials, Inc if you need data for this purpose.			

- Stat-Rite® M809 is available in either sheet or pellet form.

FEATURES

- Permanent static dissipative performance
- Humidity insensitive
- Contact clarity
- Ultra-clean: low ionics
- Recyclable and reusable

APPLICATIONS

- Electronic assembly packaging
- PCB tray packaging
- Electronic component handling

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HANDLING CONSIDERATIONS

Properties of all Stat-Rite® polymer products in the molten state are adversely affected by moisture. Although Stat-Rite products are dry when packaged, trace amounts of moisture can be absorbed during storage and handling. For best results, always keep this material in unopened factory packaging until use.

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Typical Cleanliness Properties:

Cleanroom Properties	Test Method	Test Results
Outgassing Components:	Lubrizol Advanced Materials Test Method: #3010-3	µg/g
Total Organics		250
MMA		40
Styrene		15
Toluene		180
Ionic Content – Cations	Lubrizol Advanced Materials Test Method	ng/cm ²
Na		200
Ionic Content – Anions	Lubrizol Advanced Materials Test Method #3010-4	ng/cm ²
Cl ⁻		20
NO ₃ ⁻		4
SO ₄ ⁻		15
PO ₄ ⁻		15

TYPICAL PERMANENCE PROPERTIES:

Permanence Test	Test Method	Surface Resistivity	Volume Resistivity
Original Sample at 50% RH	ASTM D-257	4E9	7E9
Original at 15% RH	ASTM D-257	2E10	5E10
Water Spray	MIL Spec 81705C	5E9	1E10
Solvent Wiped (IPA)	MIL Spec 81705C	6E9	9E9