

LAIRD™ ELECTROSEAL™ ECE81

The ELECTROSEAL™ ECE81 Electrically Conductive Elastomer from Laird Performance Materials is a silver coated aluminum filled silicone elastomer. It has excellent EMI shielding at temperature extremes, ozone and pressure resistant, and has a long shelf life. This material is designed for molded and extruded EMI gaskets, or can be formed into sheets and then die cut.

FEATURES AND BENEFITS

- Silver coated aluminum filled silicone with balance performance
- Utilized both conductive and non-conductive materials
- Retain strong EMI protection
- Available for both molding and extrusion
- UL94HB rating
- RoHS compliant and halogen free per IEC-61249-2-21 standard

MARKETS

- Telecom
- Datacom
- Industrial
- Automotive

CHARACTERISTICS

Item	Unit	Typical Value ^{^1}	Test Method
Base elastomer		Silicone	-
Conductive filler		Silver coated aluminum	-
Color	-	Tan	Visual inspection
Density	g/cm ³	2	ASTM D792
Hardness, Shore A ^{^2}	-	65	ASTM D2240
Volume resistivity	Ohm-cm	0.005	MIL-DTL-83528E Para 4.5.11
Tensile strength	MPa	2.2	ASTM D412
Elongation	%	150	ASTM D412
Tear strength	N/mm	18	ASTM D624(die C)
Compression set	%	12	ASTM D395(B) 22hrs@125°C
Outgassing, TML	%	0.1	ASTM E595
Outgassing, CVCM	%	0.02	ASTM E595
Shielding Eff ^{^3}	dB	100	MIL-DTL-83528E para 4.5.12
Operation temp.	°C	-55 to 155	-
Flammability	-	HB	UL94

^{^1}: Typical values above are based on standard test methods.

^{^2}: This will be varied with part size and processing process.

^{^3}: Average SE @10GHz

SHELF LIFE

12months at 23°C/60%R.H.

Note:
ECE81 is also known as ECE81E or ECE81M. The suffix of E or M is to show the forming method, extrusion or molding, of the parts. The composition and performance are almost the same among ECE81, ECE81M, and ECE81E.

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