



MULTI-EXTRUSION, BI-FUNCTIONAL ELASTOMER GASKET

Laird Technologies' Gemini™ 81 product line is a high-performance gasket solution that combines a reliable environmental silicone elastomer seal with an electrically conductive elastomer: ECE81. Silver/graphite conductive particle filler results in a product with lower material cost and an improved environmental seal against water, moisture, dust and mildly corrosive atmospheric conditions due to smog.

FEATURES

- Combines the strength of silicone rubber with Laird Technologies' proprietary conductive elastomer EMI shielding materials and knowledge
- Improved environmental seal
- Improved EMI performance over lifetime
- Cost-effective
- Available in both standard and custom profiles
- Ability to use finite element analysis to design the best custom gasket for your application

MARKETS

- Wireless infrastructure
- Remote radio units
- Telecom cabinets
- Radar
- IT cabinets
- All electronic cabinets or electronic chassis that require both an environmental seal and EMI shielding

SPECIFICATIONS

	Nonconductive elastomer	Conductive elastomer	Typical co-gasket design	Test method
Name of material	NCE220	ECE81	NCE220/ECE81, co-ECE	
Polymer matrix	Silicone rubber	Silicone rubber	Silicone rubber	
Filler	Alumina	Silver/Al	Alumina/Ag/Al	
Flammability UL94	HB	HB	HB	file E203070
Color	Blue	Tan	Tan & Blue	visual
Hardness	70 Shore A	65 Shore A	NA	ASTM D2240
Specific gravity	1.2	2.0	NA	ASTM D792
Tensile strength	2.8 MPa	1.3 MPa	NA	ASTM D412 (modified)
Tear strength		30 ppi,min	NA	GB/T529-91 (modified)
Elongation to break	100 to 400%	100 to 300%	100 to 300%	ASTM D412
Working temperature range	-50 to 150°C	-50 to 160°C	-50 to 150°C	ASTM J D1329
Environmental	RoHS Compliant	RoHS Compliant	RoHS Compliant	EU directive 94/62/EC, Dec 20, 1994
Volume resistivity (max value)	Insulator	0.010 ohm-cm	NA	MIL-DTL-83528C (PARA 4.5.10)
Aging volume resistivity (max value)	Insulator	<0.010 ohm-cm	NA	Laird aging test - MIL-DTL-83528C (PARA 4.5.10)
Mold growth	0	1	NA	ASTM G21
Shielding effectiveness (dB)*				
100 MHz (E-field)	NA	115 dB	110 dB	
500 MHz (E-field)	NA	110 dB	100 dB	MIL-DTL-83528C (PARA 4.5.12)
2 GHz (Plane Wave)	NA	105 dB	100 dB	MIL-STD 285
10 GHz (Plane Wave)	NA	100 dB	90 dB	

Adhesive available upon request for ease of installation.

global solutions: local support™

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EMI-DS-GEMINI-81-1010

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