

Nickel/Aluminum Conductive Elastomer

The MAJR Nickel plated aluminum particle filled silicone is corrosion resistant and available as sheet stock and various extrusion profiles. The following is a relative measurement of electrical resistance, shielding effectiveness, and mechanical properties tested in accordance with procedures and requirements outlined in MIL-DTL-83528 and various mechanical ASTM test standards.

Electrical Specifications	Tolerance	Test Method	Nickel / Aluminum Elastomer (Ohm/cm)
Volume Resistivity	Maximum	ASTM D991	0.150 max. (0.08 typ.)
Shielding Effectiveness (Frequencies)	Tolerance	Test Method	Nickel / Aluminum Elastomer (dB)
100 MHz (E-Field)	Minimum	MIL-DTL-83528	130
500 MHz (E-Field)	Minimum	MIL-DTL-83528	125
2 GHz (Plane Wave)	Minimum	MIL-DTL-83528	103
10 GHz (Plane Wave)	Minimum	MIL-DTL-83528	93

Properties (Range of general specifications for Nickel / Aluminum Elastomer)					
ASTM D2240 Shore A (range)	ASTM D412 Tensile (psi min.)	ASTM D412 Elongation % (min./typ.)	ASTM D624 Tear #/in. (min./typ.)	Thermal Stability (range)	ASTM D792 Specific Gravity (range)
58-78	150	100/320	40/50	-60°C - 220°C	1.6 – 2.1

Application: The surface that this material is to be applied to must be conductive, meaning no non-conductive paint, oils, or coatings. If a non-conductive surface is present on the mating or mounting surface the conductive elastomer, shielding effectiveness will be greatly degraded.

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