

## Nickel/Aluminum Conductive Fluorosilicone Elastomer

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

| Electrical<br>Specifications             | Tolerance | Test Method   | Nickel / Aluminum<br>Fluorosilicone<br>Elastomer (Ohm/cm) |
|--|-----------|---------------|---|
| Volume Resistivity                       | Maximum   | ASTM D991     | 0.250 max.<br>(0.03 typ.)                                 |
|  |           |               |   |
| Shielding Effectiveness<br>(Frequencies) | Tolerance | Test Method   | Nickel / Aluminum<br>Fluorosilicone<br>Elastomer (dB)     |
| 100 MHz (E-Field)                        | Minimum   | MIL-DTL-83528 | 112   |
| 500 MHz (E-Field)                        | Minimum   | MIL-DTL-83528 | 112   |
| 2 GHz (Plane Wave)                       | Minimum   | MIL-DTL-83528 | 112   |
| 10 GHz (Plane Wave)                      | Minimum   | MIL-DTL-83528 | 112   |

Properties (Range of general specifications for Nickel / Aluminum Fluorosilicone Elastomer)

| ASTM D2240<br>Shore A<br>(range, typ.) | ASTM D412<br>Tensile<br>psi<br>(min./typ.) | ASTM D412<br>Elongation<br>%<br>(min./typ.) | ASTM D624<br>Tear<br>ppi<br>(min./typ.) | Thermal<br>Stability<br>(range) | ASTM D792<br>Specific Gravity<br>(range, typ.) |
|--|--|---|---|---------------------------------|--|
| 62-82, 69                              | 150/200                                    | 50/350                                      | 35/50                                   | -60°C - 220 °C                  | 1.8 – 2.3, 2.15                                |

**Application:** The surface that this material is to be applied to must be conductive, meaning no nonconductive 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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