

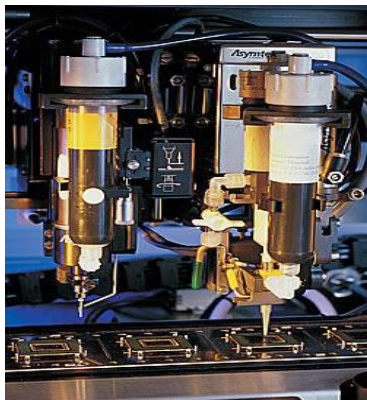
Form-in-Place EMI/RFI Shielding Gaskets (8000 Series)

Product Summary

MAJR Products Form-in-Place automated EMI/RFI gasketing is offered to facilitate the increasing demand for shielding of smaller profile and mechanically tight tolerance areas for a variety of metal and plastic housings. Our software driven automated gasket dispensing system delivers a custom programmed precise bead of conductive elastomer to narrow flanges or edges as small as 0.030 in (0.762 mm).

The conductive silicone elastomer bead is ideally placed on commercial or military compartmentalized enclosures, cellular handsets, pc cards, and a variety of other mechanically tight, real estate challenged, products. Quick prototyping and short to medium production runs is our specialty.

The robotic bead location holds a pattern positional accuracy to 0.003 in. (0.076 mm) in the X, Y, and Z axis dimensions; repeatability of each axis is 0.001 in. (0.025mm). The heated vacuum tooling plate area for dispensing the bead in the X and Y axis is 17 inches by 14 inches respectively. The Z axis dispense area has a range of 3.5 inches. If a bead is needed to be dispensed on a part that is over the travel dispense area of the machine, part rotation and dispensing of a second bead path, after the first bead path, can be done to complete the gasket.



The dispensed gasket can compensate for uneven surfaces in castings and molded parts to provide a consistent, highly reliable, seal. Our system offers technologically advanced features such as Mass Flow Calibration for reliable bead delivery, and an automatic targeting offset camera vision system with pattern recognition system for identification of local and global fiducials. The vision system compensates and corrects for part to part misalignment within the calibrated vision area. The bead dispense needle can be heated to improve flow of viscous materials along with the heated, vacuum tooling plate to enable an optimum bead to part environment within the enclosed dispensing area.

Shielding effectiveness

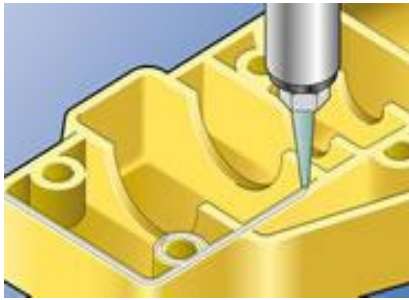
Depending on the dispensed material, shielding effectiveness (attenuation) of our dispensed gaskets may exceed 80 dB from 100 MHz to 18 GHz. With increased cross sectional area shielding effectiveness will increase. Shielding effectiveness is also dependant on bead thickness (contact area) between conductive substrates.



Form-in-Place EMI/RFI Shielding Gaskets (8000 Series) (Cont.)

Quality

With our ISO-9001:2000 commitment to continuous improvement, we have document set-up and operational procedures for consistent and reliable form-in-place products. With our 3-axis coordinate measuring system used in conjunction with our form-in-place machine, your parts will be consistent and accurate with documented final QA test results.



Other Products

For enclosures that do not need a conductive seal we offer a variety of non-conductive elastomer seals that provide exceptional environmental protection and dust sealing. These sealing compounds are dispensed in the same way as the conductive elastomers and exhibit excellent substrate adhesion, with low durometer “soft” but resilient material properties. Non-conductive materials available upon request.

Product Technical Data

Materials Properties	Silicone Nickel/ Graphite	Silicone Silver/ Copper	Silicone Silver/ Aluminum	Silicone Silver/ Nickel	Silicone
Volume Resistivity (Ohm-cm)	0.03	0.002	0.003	0.0051	N/A
Hardness ASTM D2240 (Shore A)	70	55	60	60	25
Operating Temp. Range (°F)	-58 to +257	-58 to +212	-58 to +257	-58 to +257	-58 to +300
Deflection operating range	15% to 25%	15% to 25%	15% to 25%	15% to 25%	20% to 40%
Handling time (Hr.)	1	1	1	1	0.5
Full Cure (Hr.)	24	24	24	24	12
UL Rating (UL-94)	VO	VO	VO	VO	-
Adhesion Strength (N/cm ²)	150	200	140	180	220
Color (typical)	Gray	Tan	Tan	Tan	White

The conductive particle filled materials are a one part electrically conductive room temperature 50% average humidity curing elastomer. The extruded paste material cures rapidly when exposed to atmospheric moisture. When completely cured, the materials are highly resilient elastomers that exhibit superior adhesion to a variety of substrates and exhibit low volume resistivity.

ISO-9001:2008 Registered and Veteran Owned Manufacturer

MAJR Products Corporation

17540 State Highway 198
Saegertown, PA 16433

PH: (814) 763-3211 FX: (814) 763-2952

www.majr.com email; sales@majr.com