

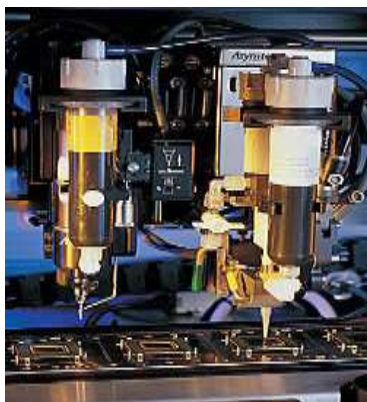
Form-in-Place EMI/RFI Shielding Gasket (8000 Series – Heat Cured)

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.

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.

Technical Specifications

Elastomer		Silicone	
Filler		Silver/Aluminum	
ELECTRICAL PROPERTIES			
Volume Resistivity		ohm-cm	0.005
Shielding Effectiveness	MIL-DTL-83528C		
200 MHz to 10 GHz	Para. 4.5.12	dB	>90
PHYSICAL PROPERTIES			
Hardness	ASTM D2240	Shore A	70
Tensile Strength	ASTM D412	kPa	1600
Tensile Elongation	ASTM D412	%	100
Density (cured)	ASTM D792	g/cm ³	2.0
Density (uncured)	LT-FIP-CLE-09	g/cm ³	2.0
Compression Set	ASTM D395	%	10
Adhesion Strength (Al)	LT-FIP-CLE-03	N/cm ²	200
Compression-Deflection (a)	LT-FIP-CLE-07		
at 20% compression		lb/in	2.3
at 40% compression		lb/in	10.5
Temperature Range		°C	-50°C to 125°C
UL rating	UL-94		V0
CURING REQUIREMENTS			
Cure Conditions		120°C minimum	
Cure Time at 125°C (b)	LT-FIP-CLE-14		1 hour

ISO-9001:2008 Registered and Veteran Owned Manufacturer

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