

## Stable Corrosion Resistant EMI Shielding Form In Place (FIP) Gaskets

Nickel plated Aluminium (Ni/Al) Filled FIP Heat Cure Silicone

### CHOFORM® 5560

CHOFORM® 5560 provides the highest shielding effectiveness after long term aging testing of any EMI shielding elastomer gasket material (see shielding graphs). The material has the highest reliability, lowest need for field service and reduces warranty needs, **reducing costs by 30 to 40%.**

Ni/Al particles have low transfer impedance. They are both inherently stable and have the best galvanic compatibility with Al flanges. This combination delivers superior durability and stability.

Ni/Al particle filled elastomers provide the lowest amount of flange pitting due to galvanic corrosion. CHOFORM 5560 reduces flange pitting on all chromate treated flanges as compared to Ag/Al filled materials by 20 to 50%. Gasket designs for use in uncontrolled environments can avoid:

- Ni or Sn plating of Al flanges and housings
- Secondary outboard nonconductive gaskets

**These eliminations can reduce the cost of a durable EMI gasket system by 45%.**

For applications in marine or aerospace environments CHOFORM 5560 may still need outboard seals however they will provide

- Reliable long term shielding and;
- Flange protection in case of outer seal failure.

Using FIP dispensing technology a precisely located gasket is placed on the narrowest possible flange. The total cost of ownership is reduced by decreased assembly labor and supply logistics. The narrow flange allows for smaller package size or increased space for PCB. The gasket is amongst the softest available lowering closure force requirements and eliminating fasteners or need for rigid housings.

### Contact Information:



### Product Features:

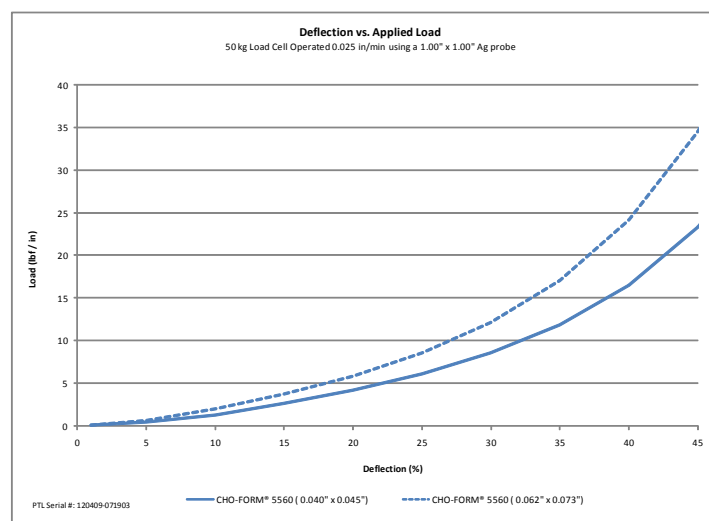
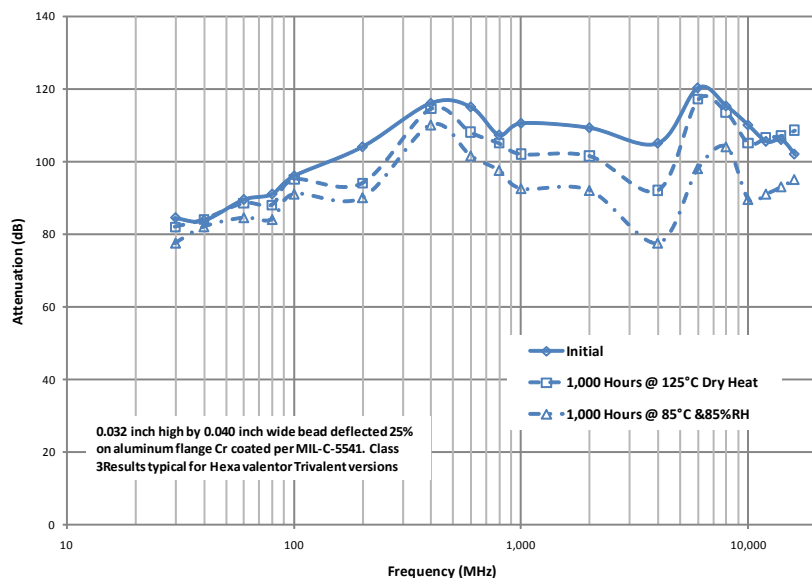
- Long life durability for shielding effectiveness 80 to 115 dB
- Lower cost for gasketing in harsh environments by eliminating:
  - Outboard non-cond. gaskets
  - Metallic (Nickel, tin or silver) plating
  - Complicated partial flange painting designs
  - Outboard enclosures
- Low transfer impedance
- Lowest galvanic corrosion on both Cr (III) & Cr (VI) coated Al flanges available
- Integrated EMI shielding gasket and housing
  - Eliminate gasket packaging, handling & assembly
  - Reduced housing assembly time
  - No separate procurement or inventory costs
  - Supply chain management providing ongoing logistics
- Excellent adhesion to chromate treated aluminium.
- Low compression set for long term sealing
- Low Shore A hardness for reduced closure force and fasteners
- High tensile strength and elongation for gasket damage resistance in handling
- Heat cure for fast processing
- Precise dispensing of gasket beads
- Flange width reduction frees space for PCB components or device miniaturization
- UL 94 V-0 rated as tested by Chomerics
- Electrically conductive to provide electrical ground
- Supplied as dispensed gasket or bulk compound
- Rapid prototyping
- RoHS Compliant

# Product Information

Typical Properties	Test Procedure	Units	Typical Values
Conductive Filler	--	--	Nickel Plated Aluminium
Resin System	--	--	Silicone
Number of Components	--	--	1
Cure System	--	--	Thermal
Cure Schedule Handling Time Full Cure	--	--	30 minutes at 150 °C 30 minutes at 150 °C
Hardness	ASTM D 2240	Shore A	50
Tensile Strength	ASTM D 412	psi	165
Elongation	ASTM D 412	%	150
Specific Gravity	ASTM D 395	--	1.8
Galvanic Corrosion 168 Hours on Cr3+ Al 168 Hours on Cr6+ Al 500 Hours on Cr3+ Al	Chomerics TM-101 Chomerics TM-101 Chomerics TM-101	mg weight loss mg weight loss mg weight loss	4 3 15
Compression Set @ 85 °C	ASTM D 395 Method B	%	25
Maximum Use Temperature	--	°C	125
Volume Resistivity Initial Aged 1,000 hours at 125 °C	Chomerics MAT-1002 Chomerics MAT-1002	Ω - cm Ω - cm	0.13 0.13
Flammability Rating	UL 94	--	V-0
Adhesion Trivalent Aluminium Hexavalent Aluminium	Chomerics WI038 Chomerics WI038	N/cm N/cm	6.0 6.0
Force Deflection 10% 30%	ASTM D 575 Modified ASTM D 575 Modified	N/cm (lb-f/in) N/cm (lb-f/in)	23.1 (13.2) 56.7 (32.4)
Bead Size Smallest Recommended Largest Tested	Height by Width Height by Width	Inches Inches	0.040 X 0.045 0.063 X 0.075
Shelf Life (Bulk material stored at <°C)	--	Months	6

The user, through its own analysis and testing, is solely responsible for making the final selection of the system and components and assuring that all performance, endurance, maintenance, safety and warning requirements of the application are met. The user must analyze all aspects of the application, follow applicable industry standards, and follow the information concerning the product in the current product catalog and in any other materials provided from Parker or its subsidiaries or authorized distributors.

## Cho-Form 5560 Typical Shielding Effectiveness Per CHO-TP09



Supplied by:  
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