# Conductive Elastomer Molded Gaskets

**STANDARD PARTS**
Parker Chomerics produces molded conductive elastomer EMI gaskets in hundreds of standard sizes in the following forms:

- O- and D-rings, flat washers
- Connector Gaskets - Interfacial Mil Spec (MS) connector seals; D-subminiature rectangular; Jam-nut seals
- Waveguide Gaskets - Molded circular and rectangular (O or D cross section)

**CUSTOM MOLDED ELASTOMERIC SHAPES**
Parker Chomerics can mold conductive elastomer EMI gaskets to fit practically any application. With our range of high quality materials and efficient manufacturing systems we can provide attractive choices in price and performance. Parker Chomerics engineers can rapidly optimize gasket designs (at little or no cost), using tools such as finite element analysis (see next page). Prototype development, tooling and part delivery are performed to meet our customers' requirements, with adherence to the industry's highest quality standards.


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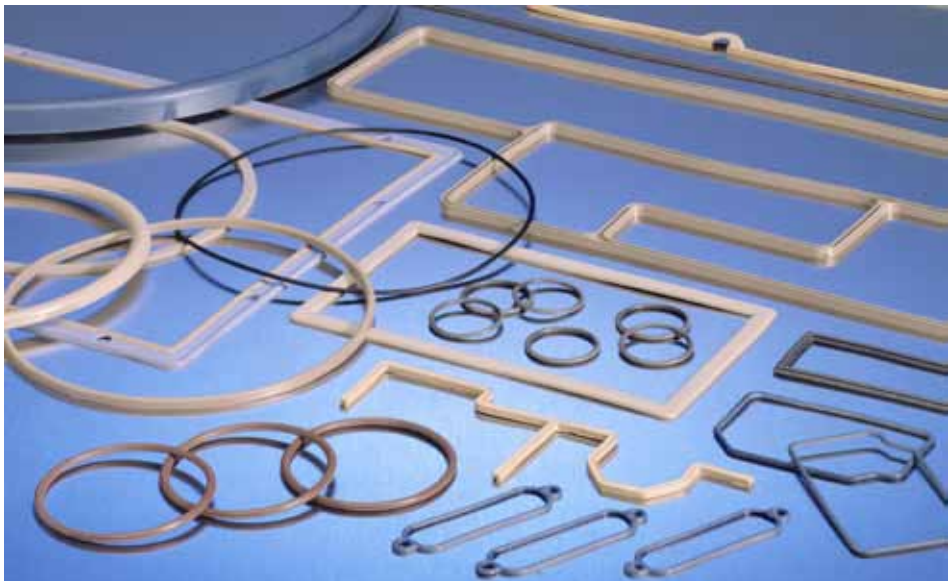

Custom elastomer gaskets can include tight corners, retention bumps, ribs and other special geometries. Many other features can be added, such as fabric or mesh reinforcement, pressure-sensitive adhesive, and compression stops. Non-conductive environmental seals can be bonded to or co-molded with conductive EMI shielding elastomers. Contact Parker Chomerics Applications Engineering Department to discuss how custom conductive elastomer shapes can be designed to meet your application requirements. Table 1 provides general tolerances for molded conductive elastomer gaskets.

**FINITE ELEMENT ANALYSIS**
Parker Chomerics specializes in elastomer finite element analysis (FEA), using the MARC K6 Series software as a foundation of FEA capability.

**Benefits of FEA include::**

- Optimizing elastomer gasket designs
- Allowing accurate predictions of alternate design concepts
- Eliminating part and tooling charges as well as extensive trial and error prototype evaluation

This advanced computer simulation technology enables compression/deflection characteristics and other parameters to be evaluated and optimized during the design phase, without the delays of trial-and-error prototyping. FEA is routinely employed in the development of Molded-In-Place Cover Seals.
For additional information contact our Applications Engineering Department.
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# Molded Gaskets - Product Information

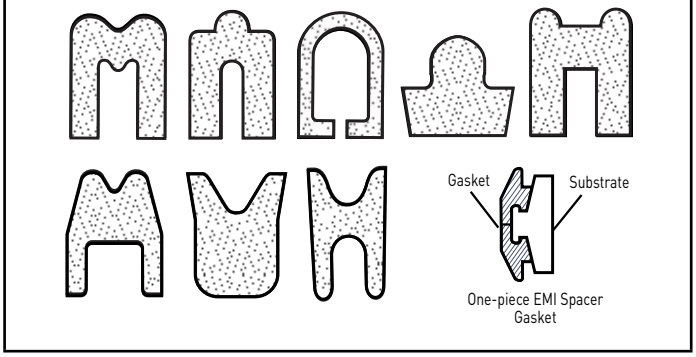
## SIZE LIMITATIONS

Parker Chomerics can produce Molded-In-Place gasket/panel assemblies in any overall dimension larger than ¾ x ¾ in. (19 x 19 mm). Minimum recommended gasket profile cross section is 0.062 in. (1.6 mm), with a minimum thickness of 0.020 in. (0.5 mm) for flat gaskets. Smaller cross sections and thicknesses, although not recommended, can be accommodated.

Table 1

| Molded Gaskets inches (mm) | Tolerances inches (mm) |
|---|---|
| **Overall Dimensions** | |
| 0.100 to 1.500 (2.54 to 38.10) | ±0.010 (0.25) |
| 1.501 to 2.500 (38.13 to 63.50) | ±0.015 (0.38) |
| 2.501 to 4.500 (63.53 to 114.30) | ±0.020 (0.51) |
| 4.501 to 7.000 (114.33 to 177.80) | ±0.025 (0.64) |
| >7.000 (>177.80) | 0.35% nom. dim. |
| **Cross Section** | |
| 0.040 to 0.069 (1.02 to 1.75) | ±0.003 (0.08) |
| 0.070 to 0.100 (1.78 to 2.54) | ±0.004 (0.11) |
| 0.101 to 0.200 (2.57 to 5.08) | ±0.005 (0.13) |
| 0.201 to 0.350 (5.11 to 8.89) | ±0.008 (0.20) |

**CROSS SECTIONS OF TYPICAL CUSTOM MOLDED EMI GASKETS**

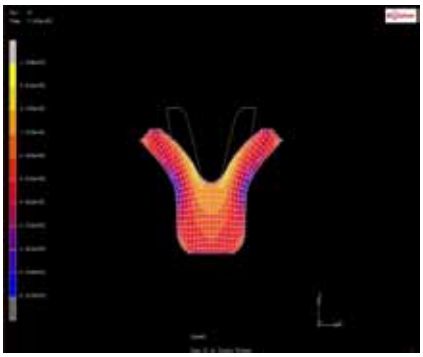



Refer to Parker Chomerics Conductive Elastomer EMI Gaskets Molded and Extruded Materials Selector Guide for details. Note that these parts are available only in Cho-Seal materials with the "M" (Molded) format.

## FIGURES 1a-c

A typical use of FEA in designing molded gaskets is the evaluation of force and deflection needed for proposed designs. The FEA shown in Figure 1a, performed on the cross section in Figure 1b predicts the gasket's deflection characteristics and compression requirements reported in Figure 1c.

Figure 1a



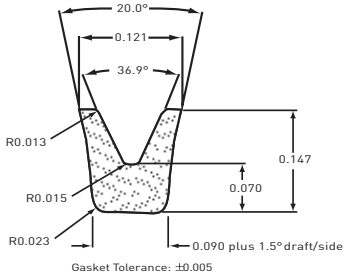



Figure 1b

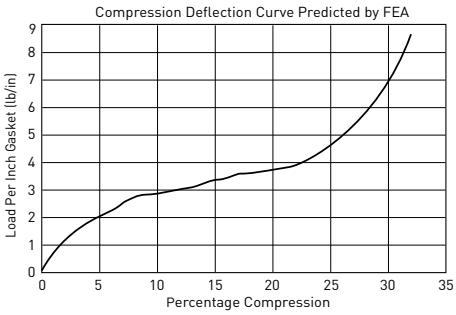



Figure 1c

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