

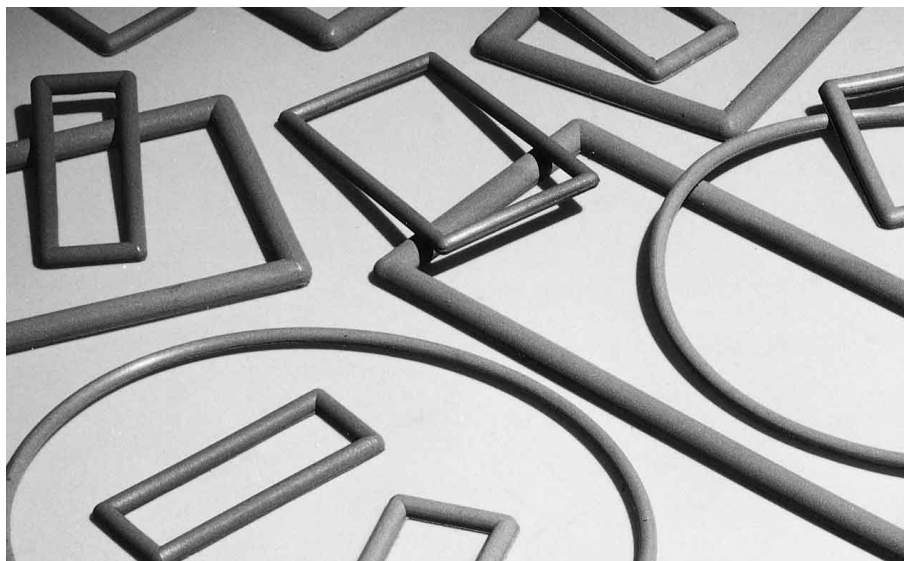
Molded Shapes

Standard Parts

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

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

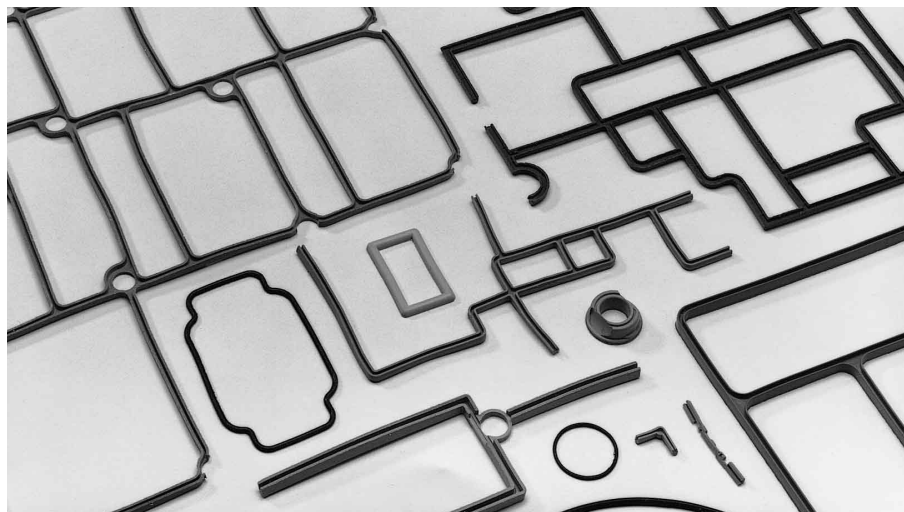
For complete specifications on these standard parts, including material selection, contact our Sales offices listed at the bottom of this page. **Note:** Tooling charges may be incurred for some parts.



Custom Molded Gaskets

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. 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 each performed to meet our customers' requirements, with adherence to the industry's highest quality standards.

Custom molded elastomer gaskets can include tight corners, retention bumps and other special geometries. Many other features can be added, such as fabric or mesh reinforcement, pressure-sensitive adhesive, fasteners and compression stops. Non-conductive silicone environmental seals can be bonded to or co-molded with conductive EMI shielding elastomers. Representative custom molded elastomer gasket parts are shown here. Contact Chomerics' Applications Engineering Department to discuss how custom molded conductive elastomer shapes can be designed to meet your application requirements.



CROSS SECTIONS OF TYPICAL CUSTOM MOLDED EMI GASKETS

One-piece EMI Spacer Gasket
(see page 14)

continued

General Tolerances

The following table provides general tolerances for molded conductive elastomer gaskets. It is important to note that *all flat die-cut, molded, and extruded gaskets are subject to free-state variation in the unrestrained condition.* The use of inspection fixtures to verify conformance of finished parts is common and recommended where appropriate.

Also note that "Overall Dimensions" for molded gaskets includes any feature-

to-feature dimensions (e.g., edge-to-edge, edge-to-hole, hole-to-hole).

Finite Element Analysis

Chomerics, a division of the Parker Hannifin Corporation's Seal Group, is the headquarters of Parker Seal's Elastomer Simulation Group. This unit specializes in elastomer finite element analysis (FEA), using the MARC K6 Series software as a foundation for FEA capability.

Benefits of FEA include:

- Optimizing elastomer gasket designs
- Allowing accurate predictions of alternate design concepts
- Eliminating extensive trial and error prototype evaluation.

Table 1

MOLDED GASKETS <i>inch (mm)</i>	TOLERANCE
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)
Flash Tolerance	
	0.005 (0.13) Max. Thickness
	0.008 (0.20) Max. Extension

**Molded Gasket Cross Section, Nominal Squeeze
1st Comp of Cauchy Stress**

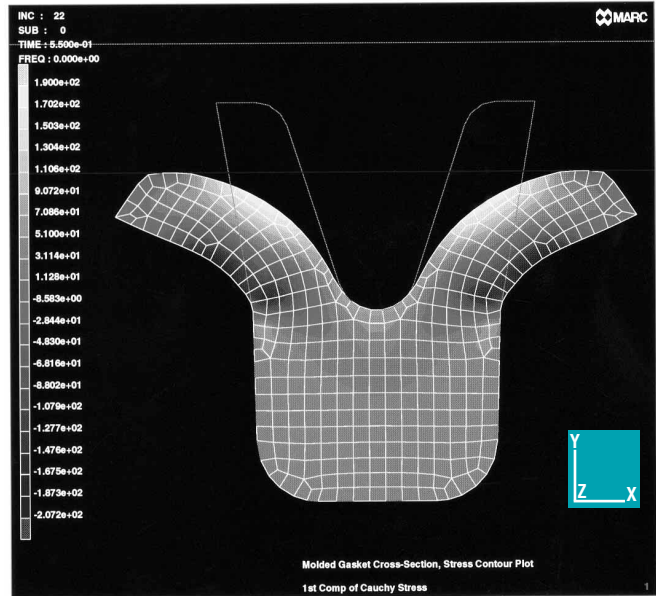


Figure 1a

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

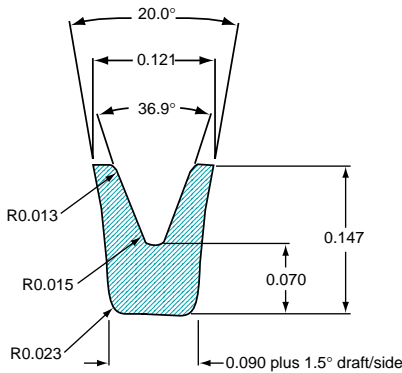


Figure 1b

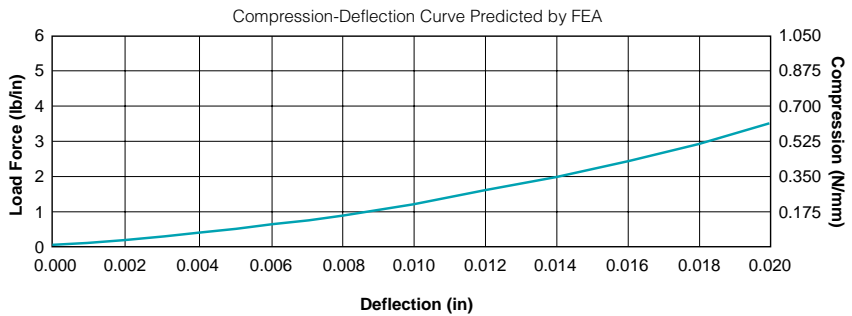


Figure 1c