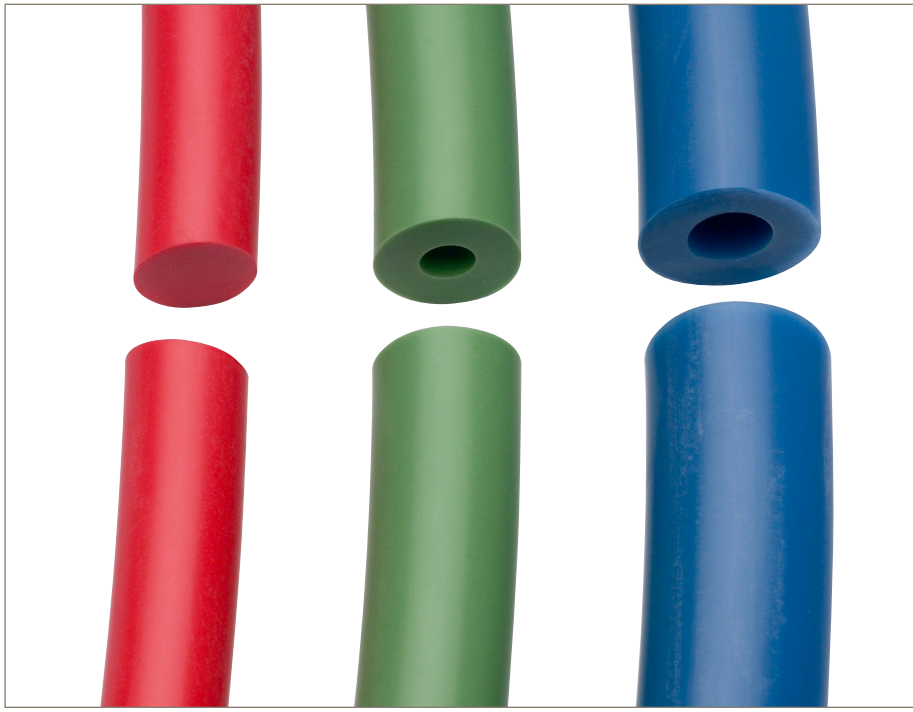
Low-Closure Force Static Seals

Sealing force optimization:

Parker's hollow cross-section, low-closure force seals reduce bolt loading and flange requirements when sealing enclosures and boxes. These spliced hollow rings are used in telecommunications, electronics, semiconductor, general industrial, aerospace, military and automotive applications.

This reduced closure force is achieved by changing from a solid to a hollow cross-section without lowering the material hardness. The required seal compression force (lbs/in) in hollow cross-section extrusions can be customized to specific applications and designs by adjusting the thickness of the wall. This customization allows for more flexibility in the design of the enclosure and choice of construction materials.



Contact Information:

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Product Features:

- Reduces the compressive force required to seal
- Minimal use of bolts
- Eliminates stress generated on the sealed components
- Can be customized to specific applications and designs
- Physical properties of a higher durometer material with the compression force of a lower durometer material
- Can be manufactured in several compounds, including:
  - Butyl
  - EPDM
  - Fluorocarbon
  - Fluorosilicone
  - HNBR
  - Neoprene
  - Nitrile
  - Silicone

Parker

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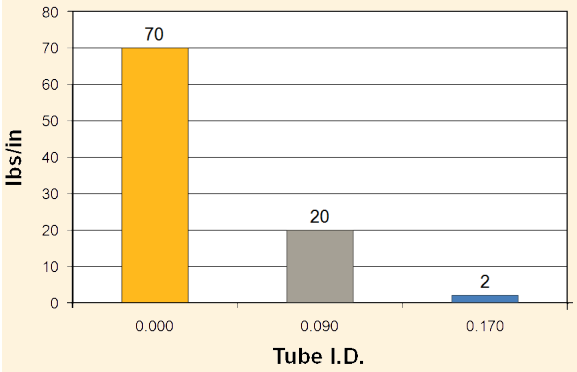
Silicone Deflection Curves

30 % Deflection/Compression

Notice the affect wall thickness has on closure force

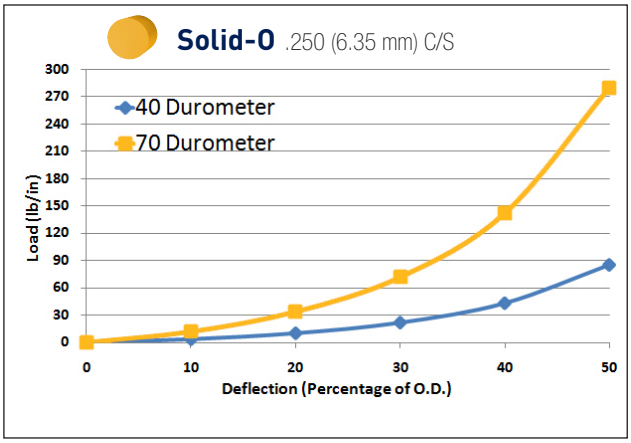


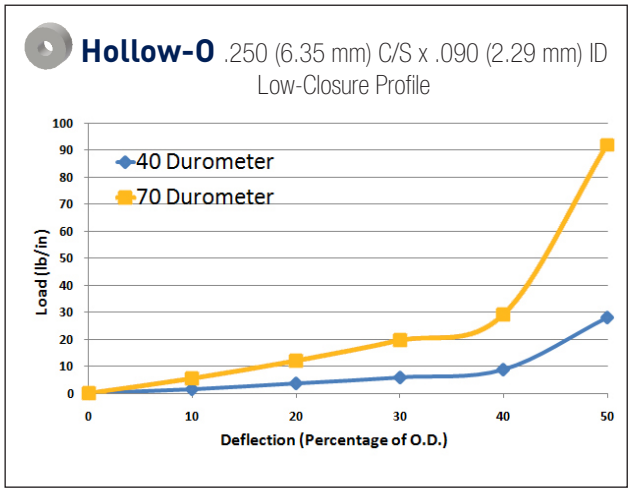
Solid-O
.250 (6.35 mm) C/S
- Approx: 70 lbs/in

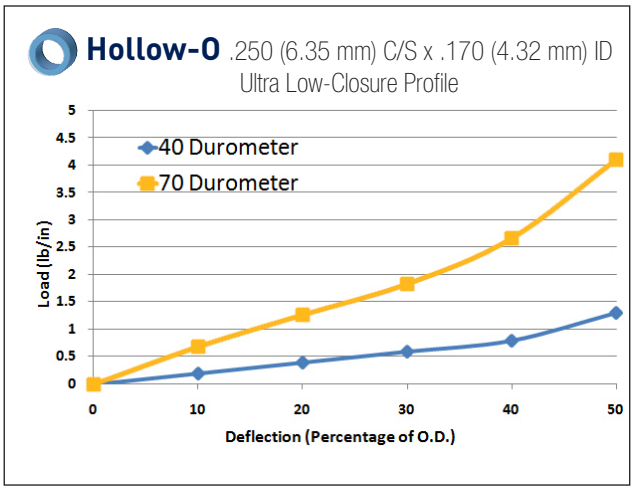
Hollow-O
.250 (6.35 mm) C/S x .090 (2.29 mm) ID
- Approx: 20 lbs/in

Hollow-O
.250 (6.35 mm) C/S x .170 (4.32 mm) ID
- Approx: 2 lbs/in

***Notice:** *lowering the durometer from 70 to 40 does have an impact on lb/in compression force required for a given percent of deflection (squeeze). However, the most dramatic impact on lb/in compression force required for a given percent deflection (squeeze) can be acomplished by changing from a Solid-O cross-section to a Hollow-O cross section.*







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