Performance Data

COMPRESSION-DEFLECTION

The deflection of knitted wire mesh strips under various compressive loads is a function of size, shape, and wire material.

Figures 1-7 provide typical compression-deflection data for common sizes and shapes in both monel and Ferrex materials. Figure 7 applies to monel mesh over a neoprene sponge core.

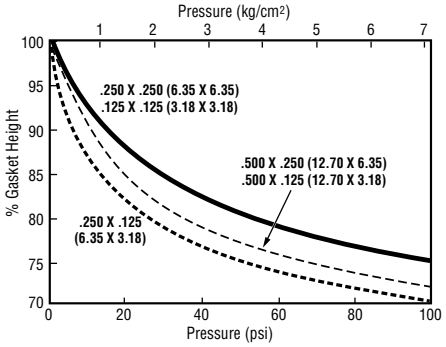

Figure 1 Compression vs. Pressure for MESH STRIP Gasketing

Dimensions are W x H in inches and (mm).

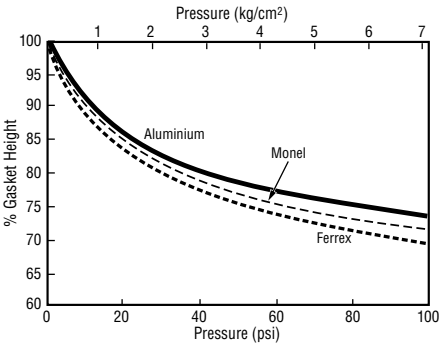

Figure 2 Compression vs. Pressure for MESH STRIP Gasketing with Cross Section of 0.250 in. (6.35 mm) x 0.125 in. (3.18 mm)

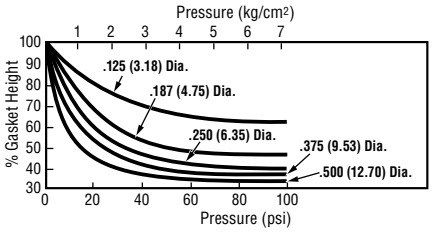

Figure 3 Compression vs. Pressure for Monel Round MESH STRIP Gasketing

Dimensions are inches and (mm).

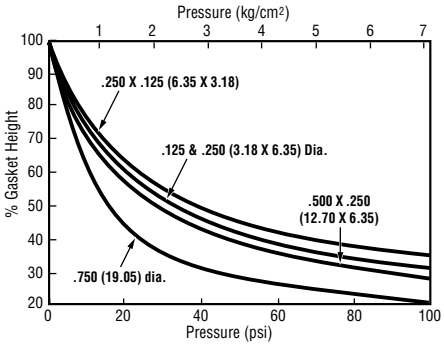

Figure 4 Compression vs. Pressure for MESH STRIP Gasketing with Neoprene Sponge Core and Two Layers of Monel Mesh

Dimensions are Dia. or W x H in inches and (mm).

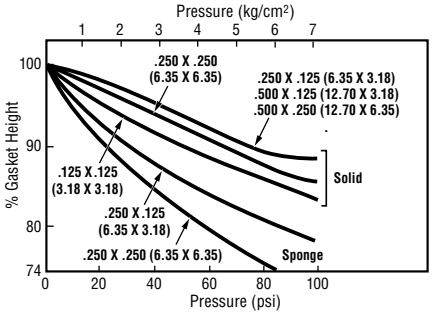

Figure 5 Compression vs. Pressure for POLASTRIP Gasketing

Dimensions are W x H in inches and (mm).

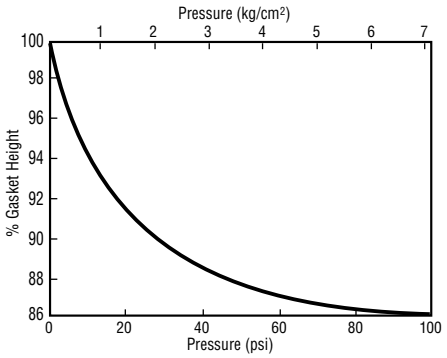

Figure 6 Compression vs. Pressure for METALASTIC Gasketing

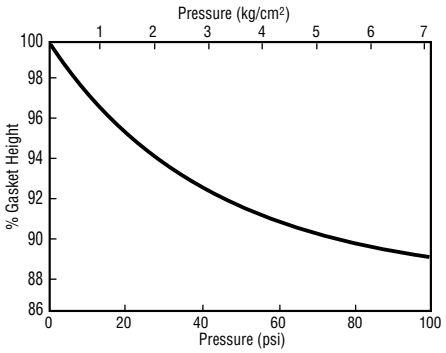

Figure 7 Compression vs. Pressure for PORCUPINE METALASTIC Gasketing

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Parker Seals

SHIELDING EFFECTIVENESS

Figures 8-11 show the shielding effectiveness of mesh, METALASTIC and POLA gasket materials, measured per MIL-STD-285, with a 12 x12 inch (305 x 305 mm) aperture in a rigid enclosure wall. Shielding effectiveness is expressed as the difference between an open-field reference measurement and a measurement with antennas placed on each side of the covered gasketed aperture. Figure 12 shows typical shielding effectiveness of METALKLIP clip-on gaskets.

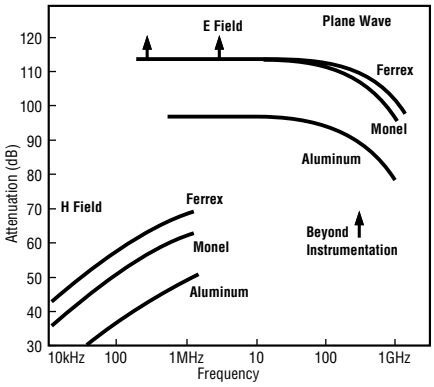

Figure 8 Shielding Effectiveness of Mesh Gaskets

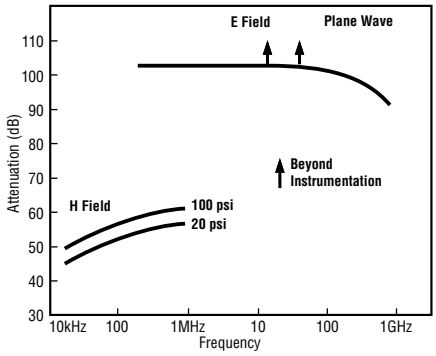

Figure 9 Shielding Effectiveness of POLA Gaskets (solid)

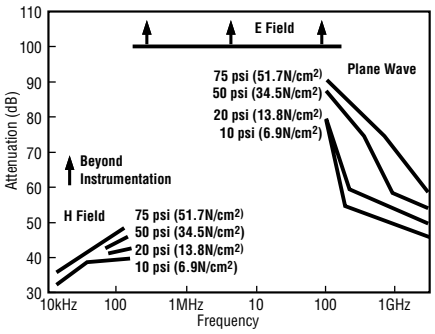

Figure 10 Shielding Effectiveness of METALASTIC Gaskets

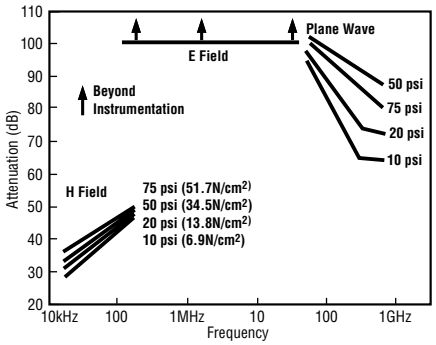

Figure 11 Shielding Effectiveness of PORCUPINE METALASTIC Gaskets

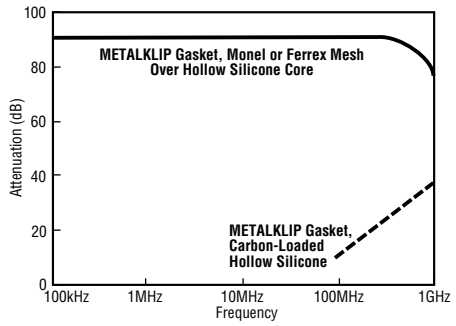

Figure 12 Shielding Effectiveness of METALKLIP Clip-On Gasketing

EMP SURVIVABILITY

In order for an enclosure to continue providing EMI isolation during and after an EMP environment, the conductive gaskets at joints and seams must be capable of carrying EMP-induced current pulses. Figure 13 shows the EMP current response of various metal mesh gasket materials.

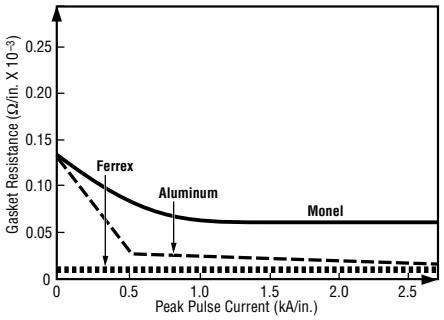

Figure 13 EMP Current Response of Mesh Gaskets

Unit Conversion Note:
Gasket Resistance, 1 mΩ/in. = 25.4 Ω/mm
Peak Pulse Current, 1 kA/in. = 25.4 kA/mm