

Metal EMI Gaskets 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.

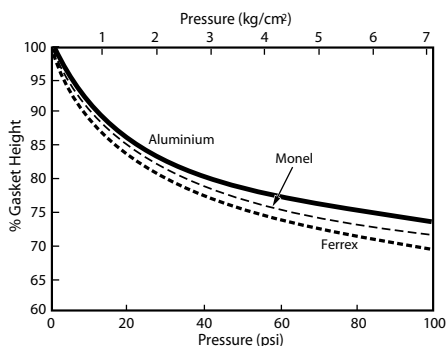


Figure 2 Compression vs. Pressure for MESH STRIP Gasketing with Cross Section of 0.250 in. (6.35 mm) x 0.125 in. (3.18 mm)

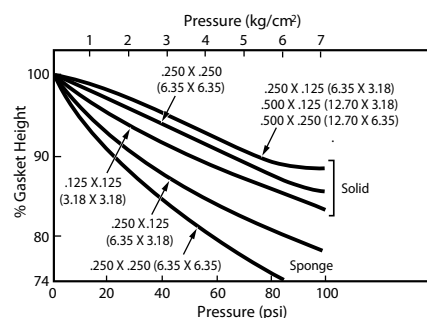


Figure 5 Compression vs. Pressure for POLASTRIP Gasketing
Dimensions are W x H in inches and (mm).

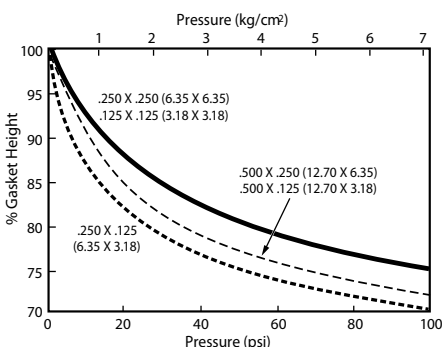


Figure 1 Compression vs. Pressure for MESH STRIP Gasketing
Dimensions are W x H in inches and (mm).

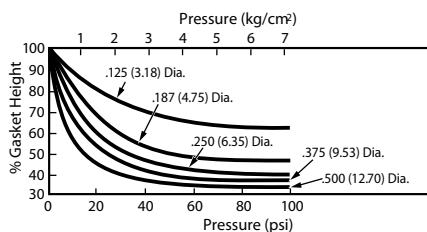


Figure 3 Compression vs. Pressure for Monel Round MESH STRIP Gasketing
Dimensions are inches and (mm).

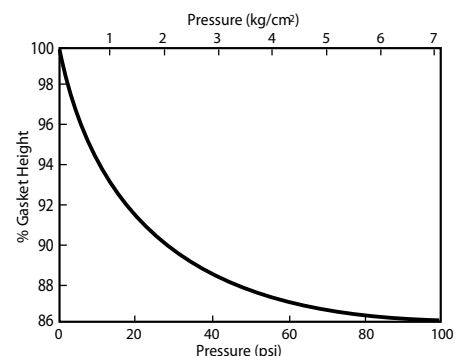


Figure 6 Compression vs. Pressure for METALASTIC Gasketing

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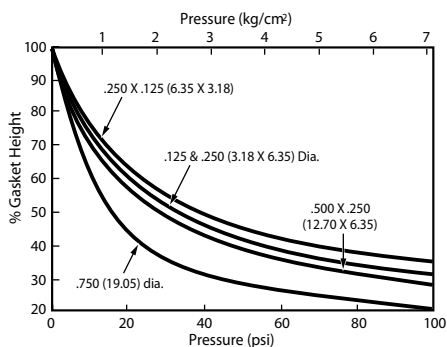


Figure 4 Compression vs. Pressure for MESH STRIP Gasketing with Neoprene Sponge Core and Two Layers of Monel Mesh
Dimensions are Dia. or W x H in inches and (mm).

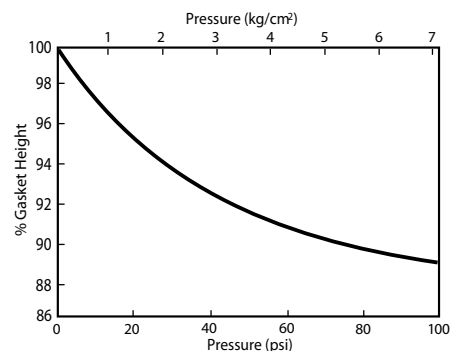


Figure 7 Compression vs. Pressure for PORCUPINE METALASTIC Gasketing

Metal EMI Gaskets - Typical Performance Data

Shielding Effectiveness

Figures 8-11 show the shielding effectiveness of mesh, METALASTIC and POLA gasket materials, measured via a radiated test method, 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.

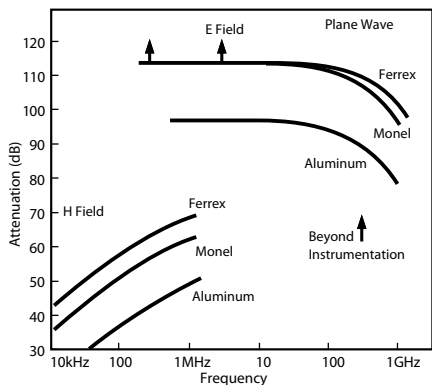


Figure 8 Shielding Effectiveness of MESH STRIP Gaskets

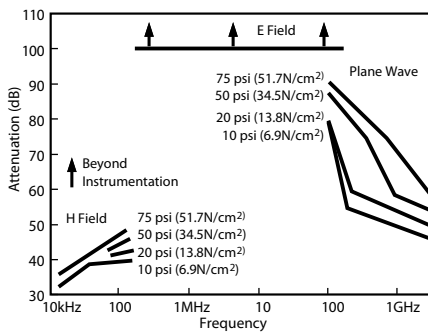


Figure 10 Shielding Effectiveness of METALASTIC Gaskets

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.

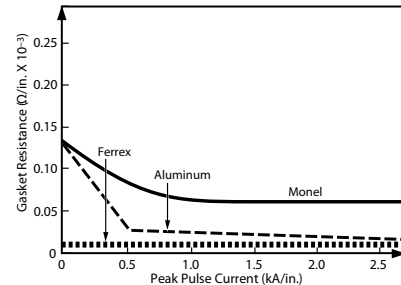


Figure 13 EMP Current Response of Mesh-Based Gaskets

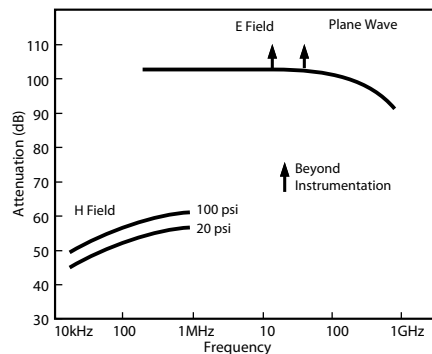


Figure 9 Shielding Effectiveness of SOLID POLA Gaskets

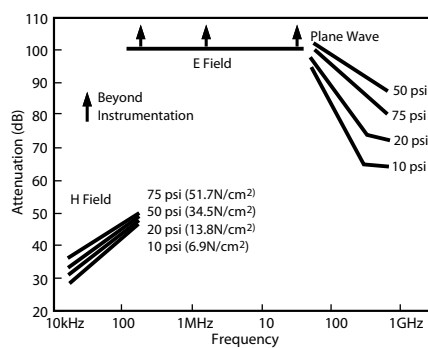


Figure 11 Shielding Effectiveness of PORCUPINE METALASTIC Gaskets

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