# **EMI Shield Seal Gasketing (1500 Series)**



MAJR's Shield Seal Strips are used in applications where there is a need for both EMI shielding and environmental protection. Some of these applications include electronic cabinets and shelters door panels as well as electronic boxes of various sizes and shapes. Shield Seal gaskets can also be fabricated into custom rectangular shapes with or without thru holes to fit almost any configuration needed as a ready to install complete gasket.

Our strip gaskets are typically provided with an adhesive backing on the elastomer due to the ease of mounting. The knit wire mesh is available in various wire materials with Monel and Ferrous materials being the most popular. Double Shield Seal materials are available for added shielding effectiveness. Consult the attenuation characteristics to determine which material would best suit your requirements.

## **EMI/RFI Shielding**

# Shielding Effectiveness vs Frequency — Table 1 **MONEL WIRE**

	Field	Material Code -02-04 Frequency							
		10 kHz	100 kHz	1 MHz	18 MHz	100 MHz	400 MHz	1 GHz	
s dB	Н	40	60	80	_	_	_	_	
es	E	_	_	_	110	_	_	_	
ive	PW	-	_	_	_	110	110	110	
	TIN PLATED FERROUS WIRE								
Shielding	Field	Material Code -10-12 Frequency							
S		10	100	1	18	100	400	1	

#### **TIN PLATED FERROUS WIRE**

<u>'</u>	Field	Material Code -10-12 Frequency								
		10 kHz	100 kHz	1 MHz	18 MHz	100 MHz	400 MHz	1 GHz		
ĺ	Н	65	80	95	_	_	_	_		
	E	_	_	_	110	_	_	_		
	PW	_	_	_	_	110	110	110		

The data presented in Table 1 was derived from laboratory tests performed upon EMI gaskets at MAJR. Test samples had an inside dimension of 12.00 x 12.00 inches (304.8 x 304.8 mm).

This data is for comparison and is not to be stated as a pass/fail specification for Shield Seal Gaskets.

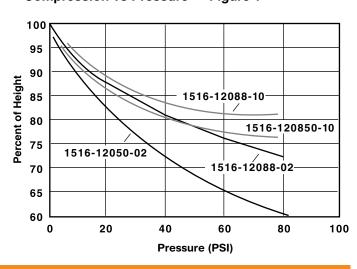
#### **Features**

- High Attenuation: MAJR's tests show this shielding material as capable of over 110dB of shielding effectiveness in the E-Field and over 70 dB in the H-Field. MAJR provides state-of-theart shielding effectiveness.
- Wide Choice of Standard Materials: Standard materials are available to meet extreme temperature conditions (-75° to 260°C) and EMI shielding conditions (beyond 110dB).
- Protection Against Adverse **Atmospheric Conditions:** The various elastomer materials as provided by MAJR protect electronic equipment against moisture and dust under severe temperature variations. There is a proper elastomer for almost every condition. Special materials are available through contacting our application engineers.

### **Compression Forces**

Figure 1 shows comparative data for solid and sponge elastomers indicating pressure required to deflect elastomer from its original height. (For reference only.)

#### Compression vs Pressure — Figure 1





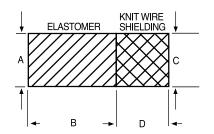


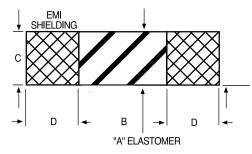
Table 2 **Shield Seal Strips** 

DIMENS	IONS in inc	ches and (mi	Ilimeters)	PART NUMBERS					
Α	В	С	D	Neo. Sponge & Monel	Silicone Sponge & Monel	Neo. Sponge & Tin Plated Ferrous	Silicone Sponge & Tin Plated Ferrous Wire		
.062 (1.57)	.250 (6.35)	.062 (1.57)	.125 (3.18)	1516-06038-02	1516-06038-04	1516-06038-10	1516-06038-12		
.062 (1.57)	.375 (9.53)	.062 (1.57)	.125 (3.18)	1516-06050-02	1516-06050-04	1516-06050-10	1516-06050-12		
.093 (2.36)	.375 (9.53)	.093 (2.36)	.125 (3.18)	1516-09050-02	1516-09050-04	1516-09050-10	1516-09050-12		
.093 (2.36)	.500 (12.70)	.093 (2.36)	.125 (3.18)	1516-09063-02	1516-09063-04	1516-09063-10	1516-09063-12		
.125 (3.18)	.125 (3.18)	.125 (3.18)	.125 (3.18)	1516-12025-02	1516-12025-04	1516-12025-10	1516-12025-12		
.125 (3.18)	.188 (4.78)	.125 (3.18)	.188 (4.78)	1516-00052-02	1516-00052-04	1516-00052-10	1516-00052-12		
.125 (3.18)	.250 (6.35)	.125 (3.18)	.125 (3.18)	1516-12038-02	1516-12038-04	1516-12038-10	1516-12038-12		
.125 (3.18)	.250 (6.35)	.125 (3.18)	.250 (6.35)	1516-00053-02	1516-00053-04	1516-00053-10	1516-00053-12		
.125 (3.18)	.375 (9.53)	.125 (3.18)	.125 (3.18)	1516-12050-02	1516-12050-04	1516-12050-10	1516-12050-12		
.125 (3.18)	.625 (15.88)	.125 (3.18)	.125 (3.18)	1516-12075-02	1516-12075-04	1516-12075-10	1516-12075-12		
.188 (4.78)	.188 (4.78)	.188 (4.78)	.125 (3.18)	1516-19031-02	1516-19031-04	1516-19031-10	1516-19031-12		
.188 (4.78)	.250 (6.35)	.188 (4.78)	.125 (3.18)	1516-19038-02	1516-19038-04	1516-19038-10	1516-19038-12		
.188 (4.78)	.500 (12.70)	.188 (4.78)	.125 (3.18)	1516-19063-02	1516-19063-04	1516-19063-10	1516-19063-12		
.250 (6.35)	.250 (6.35)	.250 (6.35)	.125 (3.18)	1516-25038-02	1516-25038-04	1516-25038-10	1516-25038-12		
.250 (6.35)	.500 (12.70)	.250 (6.35)	.125 (3.18)	1516-25063-02	1516-25063-04	1516-25063-10	1516-25063-12		
.375 (9.53)	.500 (12.70)	.375 (9.53)	.250 (6.35)	1516-38075-02	1516-38075-04	1516-38075-10	1516-38075-12		

Note: Aluminum wire is available.

All part numbers above are for elastomer with adhesive back. Change 1516 to 1515 for elastomer without pressure-sensitive adhesive (Neoprene sponge and silicone sponge only).

Table 3 **Double EMI Shield-Seal Strip** 



DIMENS	IONS in inc	ches and (m	illimeters)	PART NUMBERS					
Α	В	С	D	Neo. Sponge & Monel	Silicone Sponge & Monel	Neo. Sponge & Tin Plated Ferrous	Silicone Sponge & Tin Plated Ferrous Wire		
.125 (3.18)	.250 (6.35)	.125 (3.18)	.125 (3.18)	1516-00061-02	1516-00061-04	1516-00061-10	1516-00061-12		
.125 (3.18)	.375 (9.53)	.125 (3.18)	.125 (3.18)	1516-00062-02	1516-00062-04	1516-00062-10	1516-00062-12		
.125 (3.18)	.500 (12.70)	.125 (3.18)	.125 (3.18)	1516-00063-02	1516-00063-04	1516-00063-10	1516-00063-12		
.188 (4.78)	.500 (12.70)	.188 (4.78)	.125 (3.18)	1516-00068-02	1516-00068-04	1516-00068-10	1516-00068-12		