

STOCKWELL ELASTOMERICS

MANUFACTURING SOLUTIONS THROUGH ENGINEERED MATERIALS

Combination EMI Gaskets

Combination EMI Gaskets are made from silicone sponge or foam with knitted monel wire mesh cord bonded to the edge of the gasket.

The soft silicone sponge provides environmental sealing for dust and rain while the wire mesh provides EMI / RFI sealing. The combination EMI gaskets require less compression force to create a proper seal than metal filled EMI gaskets while offering the same EMI / RFI shielding.

Stockwell Elastomerics maintains a full inventory of silicone sponge products that can be combined with Monel wire mesh to make a combination EMI gasket. Stockwell Elastomerics also offers combination EMI gaskets made from closed cell fluorosilicone sponge and Monel wire mesh for applications requiring a higher level of chemical resistance.



blocks out EMI

Material type	Advantages	Examples	Compression Deflection
Silicone Sponge	 Good environmental sealing for rugged or outdoor applications Available in soft, medium, and firm grades Widely used for military enclosures and remote location applications where environmental conditions can vary greatly 	R10480S	25%: 7psi 50%: 21psi
		R10480M	25%: 11psi 50%: 25psi
		R10470M	25%:11psi 50%: 27psi
UL Rated Silicone Foam	 Often used for water or dust sealing function of the combination gasket Excellent UV and ozone resistance and compression set resistance Closed cell foams used for water sealing applications Open cell foams used for dust sealing 	HT-800	25%: 9psi 50%: 22psi
		BF-1000	25%: 3psi 50%: 5psi
		HT-840	25%: 22psi 50%: 46psi
Fluorosilicone Sponge	 Great for military and aerospace applications requiring additional chemical resistance for exposure to fuels or cleaning agents Similar temperature resistance to silicone with enchanced chemical resistance 	R-10490	25%: 15psi 50%: 49psi

Here are some examples of the different types of material available for combination EMI gaskets and their advantages:

Page 1 of 2

Email: <u>service@stockwell.com</u> Website: <u>www.stockwell.com</u> 4749 TOLBUT STREET. PHILADELPHIA. PA. 19136 215-335-3005 / 215-335-9433 (FAX)



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Monel Wire Mesh

Knitted Monel Wire Mesh provides EMI / RFI shielding for combination EMI gaskets. The knitted monel wire is a soft, conformable, metal fiber mesh intertwined together to help block out EMI radiation.

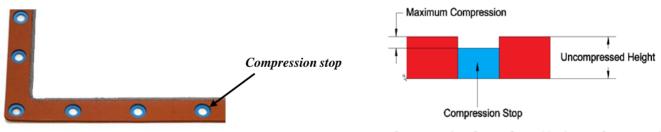


Shielding Effectiveness				
H-Field 100 kHz	60+ db			
E-field 10 MHz	130 db			
Plane wave 1 GHz	90 db			
Plane wave 10Ghz	80 db			

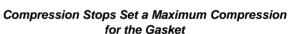
Compression Stops

Stockwell Elastomerics offers combination EMI Gaskets with standard or custom **Compression Stops**, sometimes called compression limiters.

Compression stops create a maximum compression for the gasket and prevent it from being crushed under torque. The use of **compression stops** allow assemblers to use torque specifications since fasteners will seat on the metal hard stop.



Combination EMI Gasket with a Compression Stop



Stockwell Elastomerics offers standard and custom compression stops depending on the gasket's application. See examples in photo below.



Page 2 of 2

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