



Gore-Shield®

GS8000 EMI GASKETS

Soft and Highly Conductive

Summary

GORE-SHIELD® GS8000 EMI Gaskets are ideal for applications that require conformability, excellent cavity-to-cavity EMI shielding, and superior conductivity at low compressive forces.

GORE-SHIELD® GS8000 EMI Gaskets are supplied as precision die-cut parts on rolls for high-volume assembly. This material is ideal for the cellular phone, PDA, and mobile electronics markets.

GORE-SHIELD® GS8000 EMI Gasket consists of a nickel-plated conductive polyurethane foam, a conductive pressure sensitive adhesive, a copper foil, another conductive pressure sensitive adhesive layer, and a PET carrier film (see Figure 1).

FEATURES AND BENEFITS

- Low DC resistance and high shielding effectiveness
- Excellent reliability through Accelerated Life Testing (ALT)
- Conformable and highly compressible with low force
- Increases functional space by reducing fixing points
- Minimizes stress on housing and circuit boards

APPLICATIONS

EMI shielding for mobile phones, wireless PDAs, or other portable electronic devices.

DESIGN CONSIDERATIONS

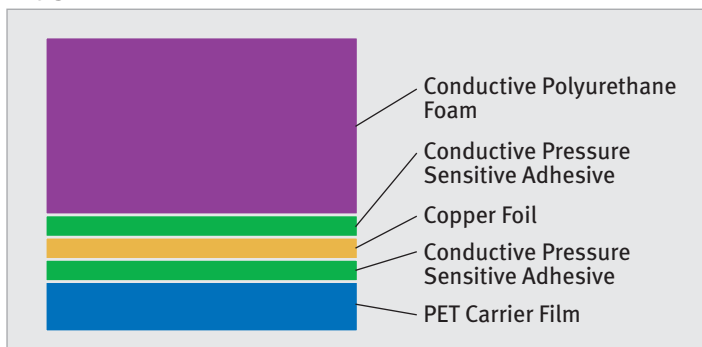
When optimizing a gasket shielding solution, consider the housing design as well as the EMI gasket performance.

Important considerations in the housing design include flatness, material type, rigidity, contact area, tolerance take-up, conductivity, fastener type, and fastener locations.

Key factors in an EMI gasket include softness, tolerance take-up, conductivity (DC resistance), and shielding effectiveness both before and after Accelerated Life Testing (ALT).

Gore application engineers can provide expert design assistance and rapid prototyping for your EMI shielding solution needs. Please contact Gore for additional information.

FIGURE 1



GS8000 NOMINAL PROPERTIES

Property	Nominal Value	Test Method
Composite Thickness		
GS8000-063	1.6±0.25mm	Measured Optically
GS8000-126	3.2±0.25mm	Measured Optically
Die-Cut Part Thickness		
GS8000-063	1.0mm	Measured Optically
GS8000-126	2.3mm	Measured Optically
Recommended Compression Stop (RCS)		
GS8000-063	0.3 to 0.5mm	
GS8000-126	0.8 to 1.0mm	
Pressure to Compress to RCS*	See Chart 1	EM2WIIN T-1055
Shielding Effectiveness at RCS*	>80 dB See Chart 1	Modified ARP-17053
Temperature Limit	-45°C to 85°C	

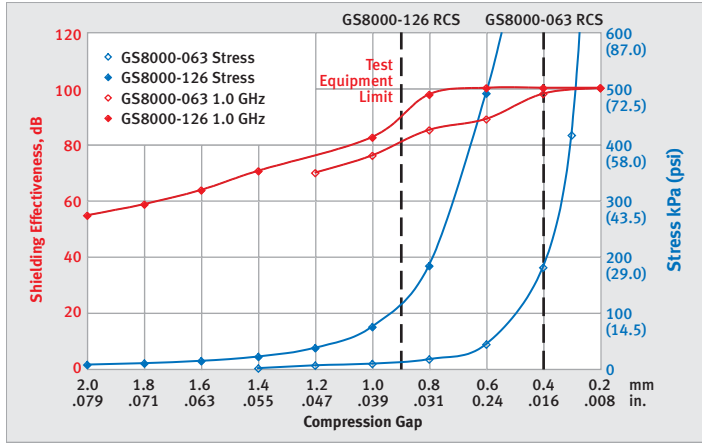
*Recommended Compression Stop



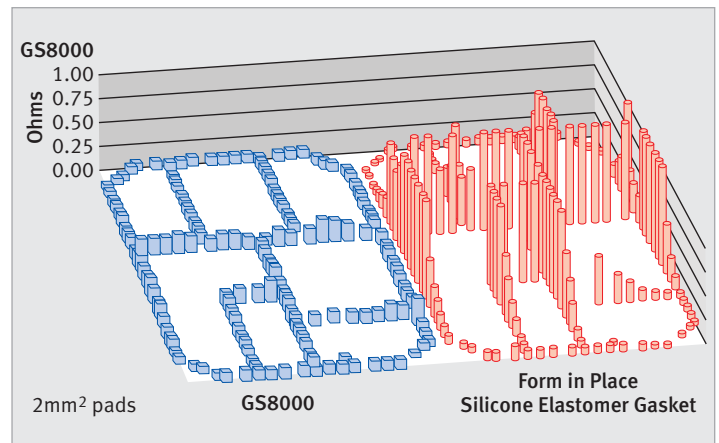
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CHART 1

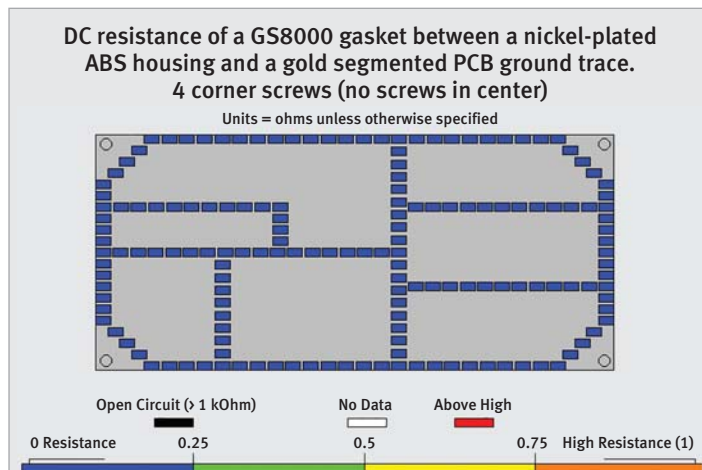


3D COMPARISON OF CONDUCTIVITY

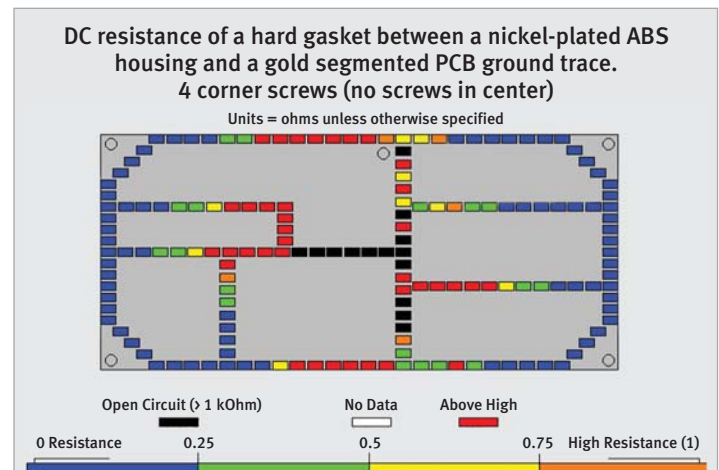


GORE-SHIELD® GS8000 EMI GASKETS

Combines softness AND excellent conductivity to provide superior cavity-to-cavity shielding



GORE-SHIELD® GS8000 EMI Gaskets have excellent, consistent electrical performance because of softness and the ability to take up tolerances. All 2mm² pads measure <0.25 ohms.



Form-in-place silicone elastomer gaskets do not conduct at increased distance from compressive screws/clips. Open circuits form on pads far from compressive screws.

RoHS Status	RoHS Material*	Pass/Fail
Lead (Pb) Content		Pass
Cadmium (Cd) Content		Pass
Hexavalent Chromium (Cr6) Content		Pass
Mercury (Hg) Content		Pass
Bromine (Br) Compounds		Pass

*W. L. Gore & Associates declares that we do not intentionally add substances listed in Directive 2002/95/EU to GORE-SHIELD® GS8000 EMI Gaskets. Independent lab tests have been performed and results are available upon request.

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