



# Gore-Shield®

GS5200 EMI GASKETS

## Summary

GORE-SHIELD® GS5200 EMI Gasket is a highly conductive, adhesive- backed, EMI gasketing material that is ideally suited for wireless infrastructure and telecommunications applications.

GORE-SHIELD® GS5200 EMI Gasket can be supplied in die-cut part forms or in slit width rolls. Slit width material is ideal for manual “peel and stick” EMI gasketing applications.

GORE-SHIELD® GS5200 EMI Gasket consists of a nickel-filled PTFE matrix, a conductive pressure sensitive adhesive, and a PET carrier film (see Figure 1).

### APPLICATIONS

EMI shielding for wireless infrastructure equipment, telecommunications equipment, in addition to specialized portable electronic devices.

### DESIGN CONSIDERATIONS

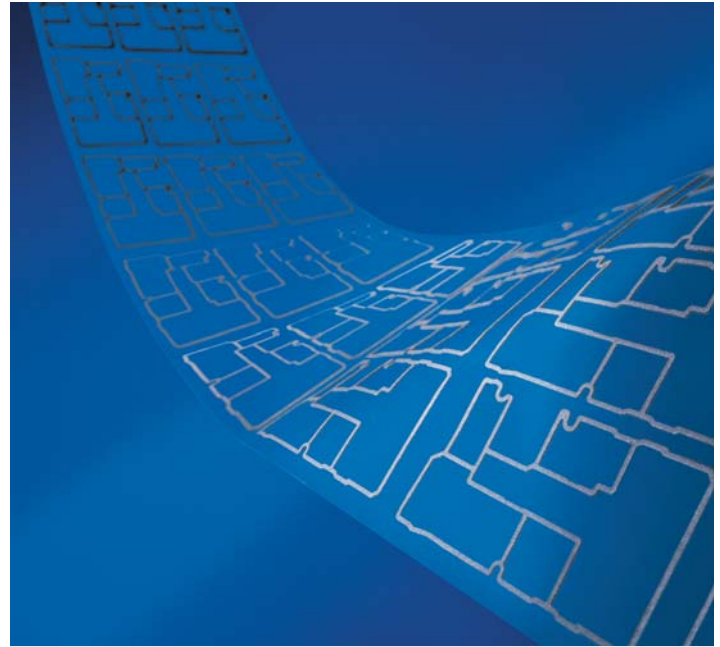
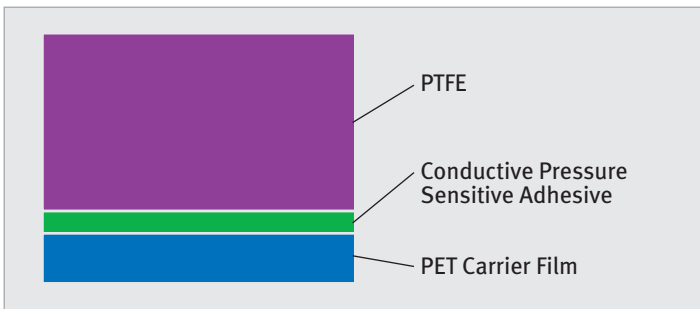
When optimizing a gasket shielding solution, consider the housing design as well as the EMI gasket performance.

Important considerations in the housing design include flatness, surface roughness, 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 needs. Contact Gore for additional information.

FIGURE 1



## Features and Benefits

- Excellent shielding effectiveness
- Excellent reliability through Accelerated Life Testing (ALT)
- Flame Retardant (UL-94 V-0)
- Broad temperature range (–45°C – 120°C)
- Years of successful use worldwide

### THICKNESS OPTIONS

In.	mm
0.015	0.38
0.024	0.61
0.030	0.76
0.055	1.40
0.060	1.52
0.078	1.98

### ROHS STATUS

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

\*W. L. Gore & Associates declares that we do not intentionally add substances listed in Directive 2002/95/EU to GORE-SHIELD® GS5200 EMI Gasket Material. Independent lab tests have been performed and results are available upon request.



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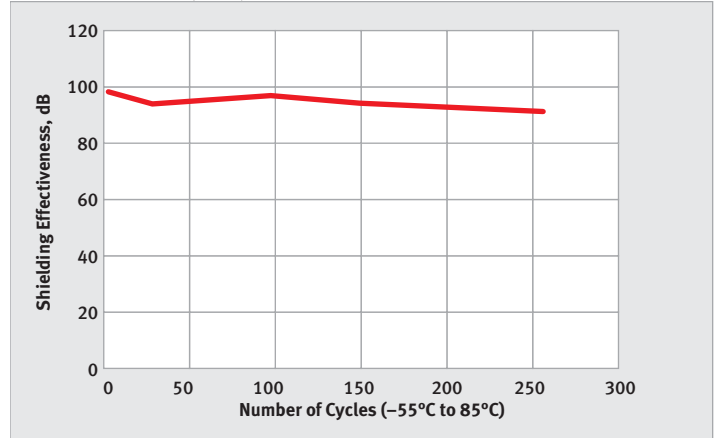
## NOMINAL MATERIAL PROPERTIES

Hardness	(Shore A) 60
Density (gm/cc)	1.95
Operating Temperature Range (°C)	-55 – 125
Fire Safety Rating (UL94)	V-0

## ELECTRICAL PROPERTIES

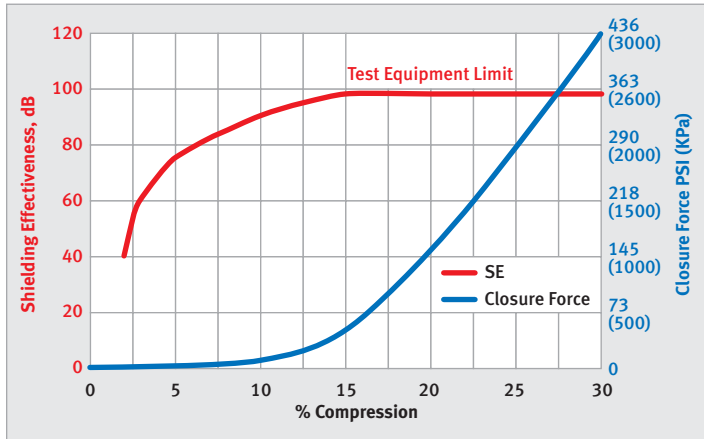
Volume Resistivity (25% compression, Ag electrodes)	0.04 ohm-cm (without adhesive)
Shielding Effectiveness (with adhesive)	>90dB (ARP 1705 Method)

## SHIELDING EFFECTIVENESS THROUGH ACCELERATED LIFE TESTING (ALT)



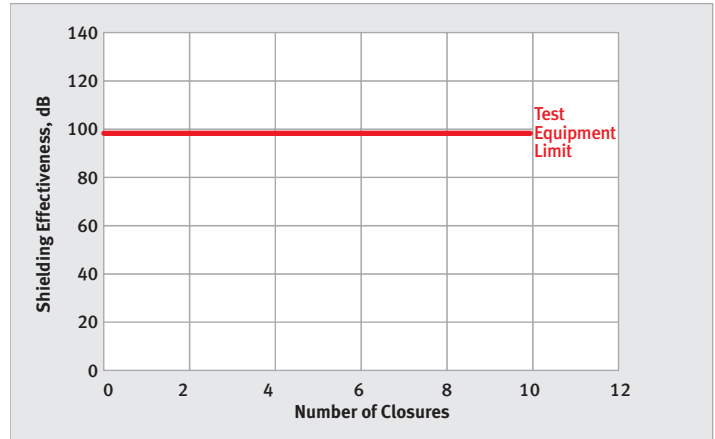
Tested in accordance with ARP 1705 (mod) at 1 GHz.

## GS5200-CLOSURE FORCE/SHIELDING EFFECTIVENESS VERSUS % COMPRESSION



Performed in accordance with ARP 1705 (modified as a transfer impedance test). Closure force based upon 0.8mm wide gasket trace.

## SHIELDING EFFECTIVENESS AFTER REPEATED OPENING AND CLOSURE OF SEAL



Tested in accordance with ARP 1705 (mod) at 1 GHz.

## W. L. Gore & Associates, Inc.

North America  
1 (800) 445-GORE (4673)

Europe  
+49 9144 6010  
+44 1382 561511

International  
1 (302) 292-5100

China: Beijing  
+86 10 6510 2980

China: Shanghai  
+86 21 6247 1999

China: Shenzhen  
+86 755 8359 8262

[gore.com/emi](http://gore.com/emi)

More international phone numbers can be found at [gore.com/phone](http://gore.com/phone)

Japan  
+81 33 570 8712

Korea  
+82 2 393-3411

Taiwan  
+886 2 8771 7799

Singapore  
+65 6 733 2882



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