Laird TECHNOLOGIES

Innovative **Technology** for a **Connected** World

51K EMI Gaskets
Fabric-over-Foam

UL 94V0 RATED NI/CU NYLON RIPSTOP (NRS) FABRIC-OVER-FOAM

Laird Technologies' Fabric-over-Foam (FoF) 51K EMI gaskets provide excellent EMI shielding performance for customers where EMI issues occur. The 51K Series EMI gaskets are composed of electrically conductive fabric wrapped around a soft urethane foam core. They are supplied with either a conductive or non-conductive pressure sensitive adhesive (PSA), and can be equipped with an Extended Release Liner (ERL) on the adhesive. The 51K is a UL 94V0 rated product that can be created with cross-section profiles such as rectangle, D, C, P, T, knife, bell shapes, and others. The 51K EMI gaskets can be further customized to an application by die-cutting, hole punching, notching, etc.

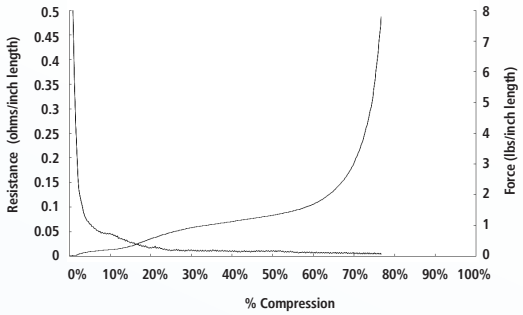
FEATURES RoHS

- Fabric-over-Foam gaskets are RoHS compliant
- UL 94V0
- Low surface resistivity of < 0.07 Ω/□ provides excellent conductivity
- Shielding effectiveness of >100 dB across a wide spectrum of frequencies
- Extremely low compression forces allow for use of lighter materials
- Fabric is highly conductive to provide good EMI shielding and grounding
- Abrasion resistant metallized fabrics show virtually no degradation in electrical performance after 1,000,000 cycles
- Laird Technologies' proprietary coating prevents fabric fraying and fingerprinting
- Available with conductive or non-conductive PSA
- Many cross-section profiles available such as rectangle, D, C, P, T, knife, bell and more
- Profile gaskets can be cut to specified lengths, kiss-cut on release liner, or mitered to form frame configurations

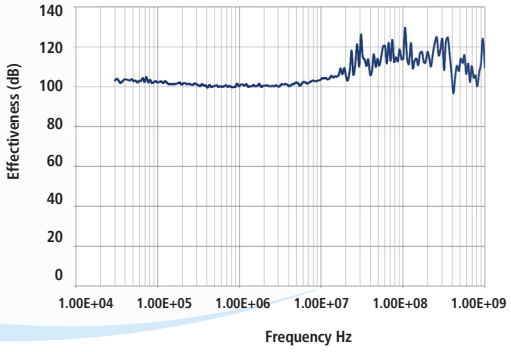
MARKETS

- Cabinet applications
- LCD and Plasma TV
- Medical equipment
- Servers
- Printers
- Laptop computers
- Networking equipment
- Desktop computers
- Telecommunications cabinets

FORCE/DISPLACEMENT/RESISTANCE (FDR)



SHIELDING EFFECTIVENESS (dB)



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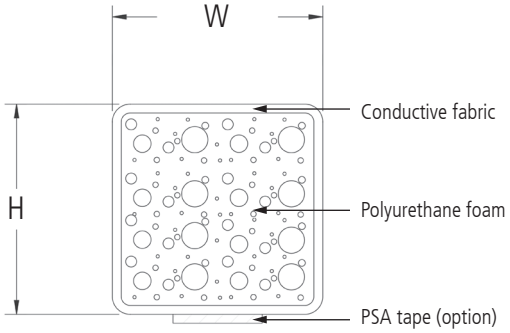
Item	Unit	Value	Test Method
Shielding Effectiveness			SAE-ARP-1705(Mod.)*
at 100 MHz		109	
at 1 GHz	dB	113	
Surface Resistivity	Ω/□	< 0.07	ASTM F390
Compression Set	%	< 20	ASTM D3574
Operation Temperature	°C	-40 to 70	-
Flame Retardant	UL 94V0 (UL file No.E170327)		
Hazardous Substance	Compliant with RoHS (Directive 2002/95/EC)		
	Compliant with SONY SS-00259		
	Antimony-free		
Shelf Life	12 months at 23°C/ 60% R.H.		

* Part tested: 8 mm H x 10 mm W, rectangle shape

COMPOSITION OF PRODUCT



PRESSURE SENSITIVE ADHESIVE (PSA TAPE) OPTIONS

Name	Type	Thickness (mm)	Peel strength on stainless steel (JIS Z 0237)	Z-axis Resistance
LT-301	Conductive PSA	0.09	> 1.3 kgf/25 mm	< 0.05 Ω
LT-350	PSA	0.12	> 2 kgf/25 mm	-

*Other PSA can be provided. Contact Laird Technologies engineering.

ORDERING INFORMATION

PART NUMBER EXAMPLE

Digits:	1	2	3	4	5	6		7	8	9		10	11	12	13	14
	4	2	1	6	A	A	-	5	1	K	-	0	1	4	0	0
	Profile Shape & Details							Product Name				Part Length (inches to two decimal points)				

EMI-DS-FOF-51K 0712

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