Techsil Conductive Elastomer LTE-15

LTE-15 is an 80 Shore A durometer silicone elastomer filled with silver plated copper particles as the conductive and shielding media. This material is reinforced with an expanded copper mesh and is recommended for cover, waveguide, choke, and flange pressure sealing and EMI shielding. This is a high strength material used for high power, high pressure applications and has excellent shielding properties and conductivity and also meets the requirements of MIL- DTL-83528 type G. This material has excellent sealing properties at temperature extremes, is ozone resistant and should be stored in sheet plastic, such as polyester or polyethylene, and kept away from sulfur-containing materials, such as sulfur-cured neoprene, cardboard, etc. This material can be supplied as die cut parts, or as standard sheet stock .027" thick. Please contact Leader Tech for additional information regarding your specific application.

Elastomer:	Silicone
Filler Material:	Silver Plated Copper, Reinforced with Expanded Copper Mesh
Color:	Tan (Custom colors available upon request)

Electrical Properties

			Test Method
Volume Resistivity (ohm-cm) (as received)	Max.	.007	MIL-DTL-83528 (Para. 4.5.10)
Shielding Effectiveness (db)	Actual		MIL-DTL-83528 (Para. 4.5.12) MIL-STD-285
20 MHz		118	
100 MHz		126	
600 MHz		126	
2 GHz		143	
10 GHz		126	

Electrical Stability

After Heat Aging (ohm-cm)	Max.	.010	MIL-DTL-83528 (Para. 4.5.15)
After Break (ohm-cm)	Max.	N/A	MIL-DTL-83528 (Para. 4.5.9)
During Vibration (ohm-cm)	Max.	.010	MIL-DTL-83528 (Para. 4.5.13)
After Vibration (ohm-cm)		.007	
After Exposure to EMP (ohm-cm) (0.9 KAmp/inch of Perimeter)	Max.	.010	MIL-DTL-83528 (Para. 4.5.16)

Physical Properties

Specific Gravity (+/-0.75)		4.75	ASTM D792 (MIL Para. 4.5.3)
Hardness (Shore A) (+/-7)		80	ASTM D2240 (MIL Para. 4.5.4)
Tensile Strength (PSI)	Min.	600	ASTM D412 (MIL Para. 4.5.6)
Elongation (%)	Min.	20	ASTM D412 (MIL Para. 4.5.6)
	Max.	N/A	
Tear Strength (PPI)	Min.	70	ASTM D624 (MIL Para. 4.5.8)
Compression Set (%)	Max.	N/A	ASTM D396 (MIL Para. 4.5.7)
Upper Operating Temp. (^{0}C)	Max.	+125	MIL-DTL-83528 (Table 1-Type G)
Lower Operating Temp (^{0}C)	Min.	-45	ASTM D1329 (MIL Para. 4.5.14)
Compression Deflection (%)	Min.	2.5	ASTM D575 (MIL Para. 4.5.5)
Fluid Immersion		NS	MIL-DTL-83528 (Para. 4.5.17)

SUR=Survivable NS=Not Survivable

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Performance of conductive elastomers vary from one application to another. Leader Tech, Inc. cannot guarantee that the above specifications will be met in your specific application. If you need assistance in testing your application, please do not hesitate to contact Leader Tech for further information.