

Techsil Conductive Elastomer LTE-80

LTE-80 is a Shore A 75 durometer hardness fluorosilicone elastomer filled with silver plated nickel particles as the conductive and shielding media. This material has excellent shielding properties and conductivity and is tested IAW MIL-DTL-83528. LTE-80 has excellent sealing properties at temperature extremes, is ozone resistant and has a long shelf life if stored in the absence of moisture, light and sulfur. LTE-80 is an excellent choice for military applications in non-corrosive environments requiring a high level of EMP resistance. This unique material is recommended for applications that require low and high temperature performance in contact with jet and automotive fuels, many solvents and engine oils. This material can be supplied as molded parts, die cut parts, extruded profiles, or as standard sheet stock. Please contact Leader Tech for additional information regarding your specific application.

Elastomer:	Fluorosilicone
Filler Material:	Silver Plated Nickel
Color:	Tan (Custom colors available upon request)

Electrical Properties

Test Method

Property	Max.	Typical	Test Method
Volume Resistivity (ohm-cm) (as received)	.006		MIL-DTL-83528 (Para. 4.5.10)
Shielding Effectiveness (db)			MIL-DTL-83528 (Para. 4.5.12) MIL-STD-285
20 MHz		80	
100 MHz		110	
600 MHz		110	
2 GHz		105	
10 GHz		100	

Electrical Stability

Property	Max.	Test Method
After Heat Aging (ohm-cm)	.015	MIL-DTL-83528 (Para. 4.5.15)
After Break (ohm-cm)	N/A	MIL-DTL-83528 (Para. 4.5.9)
During Vibration (ohm-cm)	.015	MIL-DTL-83528 (Para. 4.5.13)
After Vibration (ohm-cm)	.006	
After Exposure to EMP (ohm-cm) (0.9 KAmper/Inch of Perimeter)	.010	MIL-DTL-83528 (Para. 4.5.16)

Physical Properties

Property	Min.	Max.	Test Method
Specific Gravity (+/-0.25)		4.1	ASTM D792 (MIL Para. 4.5.3)
Hardness (Shore A) (+/-7)		75	ASTM D2240 (MIL Para. 4.5.4)
Tensile Strength (PSI)	300		ASTM D412 (MIL Para. 4.5.6)
Elongation (%)	70	300	
Tear Strength (PPI)	45		ASTM D624 (MIL Para. 4.5.8)
Compression Set (%)	40		ASTM D395 (MIL Para. 4.5.7)
Upper Operating Temp. (°C)		+125	Maximum Continuous Use Temperature
Lower Operating Temp. (°C)	-55		ASTM D1329 (MIL Para. 4.5.14)
Compression Deflection (%)	3.5		ASTM D575 (MIL Para. 4.5.5)
Fluid Immersion		SUR	MIL-DTL-83528 (Para. 4.5.17)

SUR=Survivable NS=Not Survivable