

Techsil Conductive Elastomer LTE-50

LTE-50 is a Shore A 65 durometer hardness silicone elastomer filled with silver plated glass particles as the conductive and shielding media. This material has excellent shielding properties and conductivity and meets the requirements of MIL-DTL-83528 type M. LTE-50 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-50 exhibits good performance in non-corrosive environments and is recommended for small molded parts or large profile extrusions. 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:	Silicone
Filler Material:	Silver Plated Glass
Color:	Tan (Custom colors available upon request)

Electrical Properties

Test Method

Property	Max.	Value	Test Method
Volume Resistivity (ohm-cm) (as received)	Max.	.006	MIL-DTL-83528 (Para. 4.5.10)
Shielding Effectiveness (db)	Actual	118 127 124 143 126	MIL-DTL-83528 (Para. 4.5.12) MIL-STD-285
20 MHz			
100 MHz			
600 MHz			
2 GHz			
10 GHz			

Electrical Stability

Property	Max.	Value	Test Method
After Heat Aging (ohm-cm)	Max.	.015	MIL-DTL-83528 (Para. 4.5.15)
After Break (ohm-cm)	Max.	.009	MIL-DTL-83528 (Para. 4.5.9)
During Vibration (ohm-cm)	Max.	.009	MIL-DTL-83528 (Para. 4.5.13)
After Vibration (ohm-cm)		.006	
After Exposure to EMP (ohm-cm) (0.9 KAmper/inch of Perimeter)	Max.	.015	MIL-DTL-83528 (Para. 4.5.16)

Physical Properties

Property	Min.	Max.	Test Method
Specific Gravity (+/-0.25)		1.9	ASTM D792 (MIL Para. 4.5.3)
Hardness (Shore A) (+/-7)		65	ASTM D2240 (MIL Para. 4.5.4)
Tensile Strength (PSI)	Min.	200	ASTM D412 (MIL Para. 4.5.6)
Elongation (%)	Min.	100	ASTM D412 (MIL Para. 4.5.6)
	Max.	300	
Tear Strength (PPI)	Min.	30	ASTM D624 (MIL Para. 4.5.8)
Compression Set (%)	Max.	30	ASTM D395 (MIL Para. 4.5.7)
Upper Operating Temp. (°C)	Max.	+160	MIL-DTL-83528 (Table 1-Type M)
Lower Operating Temp. (°C)	Min.	-55	ASTM D1329 (MIL Para. 4.5.14)
Compression Deflection (%)	Min.	3.5	ASTM D575 (MIL Para. 4.5.5)
Fluid Immersion		NS	MIL-DTL-83528 (Para. 4.5.17)

SUR=Survivable NS=Not Survivable