



Techsil Conductive Elastomer LTE-40-45D

LTE-40-45D is a Shore A 45 durometer hardness fluorosilicone elastomer filled with silver plated aluminum particles as the conductive and shielding media. This material has good shielding properties and conductivity, and requires a lower compressive force to reach the desired state of compression. LTE-40-45D 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. 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. LTE-40-45D provides good corrosion resistance with aluminum and other substrates. It is recommended for applications where there are dissimilar mating surfaces, the presence of salt fog or in uncontrolled environments. This material can be supplied as molded parts, extruded shapes, die cut parts, or as standard sheet stock. Contact Leader Tech for additional information regarding your specific application.

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

Electrical Properties

Test Method

Volume Resistivity (ohm-cm) (as supplied)	Max.	.015	MIL-DTL-83528 (Para. 4.5.10)
Shielding Effectiveness (db)	Min.		MIL-DTL-83528 (Para. 4.5.12) MIL-STD-285
20 MHz		108	
100 MHz		116	
600 MHz		114	
2 GHz		123	
10 GHz	116		

Electrical Stability

After Heat Aging (ohm-cm)	Max.	.015	MIL-DTL-83528 (Para. 4.5.15)
After Break (ohm-cm)	Max.	.025	MIL-DTL-83528 (Para. 4.5.9)
During Vibration (ohm-cm)	Max.	.015	MIL-DTL-83528 (Para. 4.5.13)
After Vibration (ohm-cm)		.012	
After Exposure to EMP (ohm-cm) (0.9 KAmper/inch of Perimeter)	Max.	.015	MIL-DTL-83528 (Para. 4.5.16)

Physical Properties

Specific Gravity (+/-0.25)		1.9	ASTM D792 (MIL Para. 4.5.3)
Hardness (Shore A) (+/-7)		45	ASTM D2240 (MIL Para. 4.5.4)
Tensile Strength (PSI)	Min.	100	ASTM D412 (MIL Para. 4.5.6)
Elongation (%)	Min.	60	ASTM D412 (MIL Para. 4.5.6)
	Max.	260	
Tear Strength (PPI)	Min.	20	ASTM D624 (MIL Para. 4.5.8)
Compression Set (%)	Max.	35	ASTM D395 (MIL Para. 4.5.7)
Upper Operating Temp. (°C)	Max.	+160	MIL-DTL-83528 (Table 1-Type D)
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		SUR	MIL-DTL-83528 (Para. 4.5.17)

SUR=Survivable NS=Not Survivable