

Electrically Conductive Elastomer

CE-004



CE-004 is Shore A 70 durometer hardness silicone elastomer filled with pure nickel particles as the conductive and shielding media. **CE-004** has good shielding properties and conductivity. This material has excellent sealing at temperature extremes, is ozone resistant and has a long shelf life. This material can be supplied as, molded parts, extruded shapes, and die cut parts or as standard sheet stock. Contact our main office for additional information regarding your specific application.

Elastomer:	Silicone
Filler Material:	Nickel
Color:	Dark Gray

Electrical Properties

Test Method

Volume Resistivity (ohm-cm) (as supplied)	Max.	.400	MIL-DTL-83528C	(Para. 4.5.11)
Shielding Effectiveness (db)	Min.	100	MIL-DTL-83528F MIL-STD-285	(Para. 4.5.12)
100 MHz (E-Field)				
500 MHz (E-Field)				
2 GHz (Plane Wave)				
10 GHz (Plane Wave)				

Electrical Stability

After Heat Aging (ohm-cm)	Max.	.500	MIL-DTL-83528F	(Para. 4.5.15)
After Break (ohm-cm)	Max.	.500	MIL-DTL-83528F	(Para. 4.5.9)
During Vibration (ohm-cm)	Max.	N/A	MIL-DTL-83528F	(Para. 4.5.13)
After Vibration (ohm-cm)		N/A		
After Exposure to EMP (ohm-cm) (0.9 KAMP/inch of Perimeter)	Max.	N/A	MIL-DTL-83528F	(Para. 4.5.16)

Physical Properties

Specific Gravity (+/-0.25)		4.1	ASTM D792	(MIL Para. 4.5.3)
Hardness (Shore A) (+/-7)		70	ASTM D2240	(MIL Para. 4.5.4)
Tensile Strength (PSI)	Min.	300	ASTM D412	(MIL Para. 4.5.6)
Elongation (%)	Min.	100	ASTM D412	(MIL Para. 4.5.6)
	Max.	300		
Tear Strength (PPI)	Min.	40	ASTM D624	(MIL Para. 4.5.8)
Compression Set (%)	Max.	40	ASTM D395	(MIL Para. 4.5.7)
Upper Operating Temp. (°C)	Max.	+125		
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-83528F	(Para. 4.5.17)

SUR=Survivable NS=Not Survivable

Note: For compression data please contact sales@nedc.com or refer to www.nedc.com.

Performance of conductive elastomers varies on application. NEDC Sealing Solutions cannot guarantee that the above specifications will be met in your application. If you need assistance in testing your application, do not hesitate to contact us for further information.