

Electrically Conductive Elastomer CE-003



CE-003 is Shore A 65 durometer hardness silicone elastomer filled with silver plated glass particles as the conductive and shielding media. **CE-003** has excellent shielding properties and conductivity and meets the requirements of MIL-DTL-83528F **Type M** material. This material seals very well at temperature extremes, is ozone resistant and has a long shelf life. **CE-003** provides an excellent solution for a variety of commercial and military applications. This material can be supplied as, molded parts, extruded shapes, die cut parts or standard sheets. Contact our main office for additional information regarding your specific application.

Elastomer:	Silicone
Filler Material	Ag/Glass
Color:	Tan

Electrical Properties

Test Method

Property	Max.	Value	Test Method
Volume Resistivity (ohm-cm) (as supplied)	Max.	.006	MIL-DTL-83528F (Para. 4.5.11)
Shielding Effectiveness (db)	Min.	100	MIL-DTL-83528F (Para. 4.5.12) MIL-STD-285
100 MHz (E-Field)			
500 MHz (E-Field)			
2 GHz (Plane Wave)			
10 GHz (Plane Wave)	Min.	100	

Electrical Stability

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

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