

Electrically Conductive Elastomer CE-001

CE-001 is a 65 Durometer elastomer with silver plated copper particles dispersed in a silicone matrix, capable of 110dB of plane wave shielding effectiveness at 10GHz with a continuous use temperature range of -55C to 125C. **CE-001** is suitable for applications requiring hermetic sealing, grounding, and EMI suppression. **CE-001** is certified to MIL- DTL-83528F **Type A**. **CE-001** has excellent sealing at extreme temperature, and is also ozone resistant with a long shelf life. **CE-001** can be supplied as molded parts, extruded shapes, die cut, fabricated parts or sheets. Contact our main office for additional information regarding your specific application.

Elastomer:	Silicone
Filler Material:	Silver Plated Copper (Ag/Cu)
Color:	Gray

Shielding Properties (dB)

Test Method

200 kHz (H-Field)	70	MIL-DTL-83528F (Para. 4.5.12) MIL-STD-285
100 MHz (E-Field)	120	
500 MHz (E-Field)	120	
2 GHz (Plane Wave)	120	
10 GHz (Plane Wave)	120	

Electrical Properties

Volume Resistivity(ohm-cm) (as received)	Max.	004	MIL-DTL-83528F (Para. 4.5.11)
After Life Testing (ohm-cm)	Max.	.010	MIL-DTL-83528F (Para. 4.5.15)
After Break (ohm-cm)	Max.	.008	MIL-DTL-83528F (Para. 4.5.9)
During Vibration (ohm-cm)	Max.	.006	MIL-DTL-83528F (Para. 4.5.13)
After Vibration (ohm-cm)		.004	
After Exposure to EMP (ohm-cm) (0.9 KAmper/inch of Perimeter)	Max.	.010	MIL-DTL-83528F (Para. 4.5.16)

Physical Properties

Specific Gravity (+/-0.45)		3.5	ASTM D792 (MIL Para. 4.5.3)
Hardness (Shore A) (+/-7)		65	ASTM D2240 (MIL Para. 4.5.4)
Tensile Strength (PSI)	Min.	200(1.38)	ASTM D412 (MIL Para. 4.5.6)
Elongation (%)	Min/ Max.	100/30 0	ASTM D412 (MIL Para. 4.5.6)
Tear Strength (PPI)	Min.	25	ASTM D624 (MIL Para. 4.5.8)
Compression Set (%)	Max.	32	ASTM D395 (MIL Para. 4.5.7)
Upper Operating Temp. (°C)	Max.	+125	
Low Operating Temperature (°C) (TR-10/TR-70)		-55/-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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