

Electrically Conductive Elastomer CE-002

CE-002 is Shore A 65 Durometer silicone elastomer with silver plated aluminum particles dispersed in a silicone matrix capable of 100dB of plane wave shielding effectiveness at 10 GHz with a continuous use temperature range of -55C to +160C. **CE-002** is suitable for applications requiring hermetic sealing, grounding applications, and EMI suppression. **CE-002** is qualified to MIL-DTL-83528F **Type B** material. **CE-002** 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 Aluminum
Color:	Tan

Shielding Properties (dB)

Test Method

Shielding Effectiveness (db)			
100 MHz (E-Field)	Min.	115	MIL-DTL-83528F (Para. 4.5.12) MIL-STD-285
500 MHz (E-Field)		110	
2 GHz (Plane Wave)		105	
10 GHz (Plane Wave)		100	

Electrical Properties

Volume Resistivity(ohm-cm) (as received)	Max.	.008	MIL-DTL-83528F (Para. 4.5.11)
After Heat Aging (ohm-cm)	Max.	.010	MIL-DTL-83528F (Para. 4.5.15)
After Break (ohm-cm)	Max.	.015	MIL-DTL-83528F (Para. 4.5.9)
During Vibration (ohm-cm)	Max.	.012	MIL-DTL-83528F (Para. 4.5.13)
After Vibration (ohm-cm)		.008	
After Exposure to EMP (ohm-cm) (0.9 KAMP/inch of Perimeter)	Max.	.010	MIL-DTL-83528F (Para. 4.5.16)

Physical Properties

Specific Gravity (+/-0.25)		2.0	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.	32	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.