

Electrically Conductive Elastomer CE-022



CE-022 is a Shore A 75 durometer elastomer with silver plated nickel particles dispersed in a silicone matrix capable of 110dB of plane shielding effectiveness at 10GHz with a continuous temperature range of -45C to 125C. **CE-022** is qualified to the MIL-DTL-83528F **Type L material**. **CE-022** also has high performance in non-corrosive environments. This material 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 Nickel
Color:	Tan

Shielding Effectiveness (dB)

Test Method

	Min.		
100 MHz (E-Field)	Min.	120	MIL-DTL-83528F (Para. 4.5.12) MIL-STD-285
500 MHz (E-Field)		120	
2 GHz (Plane Wave)		115	
10 GHz (Plane Wave)		110	

Electrical Properties

Volume Resistivity (ohm-cm) (as supplied)	Max.	.005	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.	.005	MIL-DTL-83528F (Para. 4.5.9)
During Vibration (ohm-cm)	Max.	.010	MIL-DTL-83528F (Para. 4.5.13)
After Vibration (ohm-cm)		.005	
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 (+/-0.25)		4.0	ASTM D792 (MIL Para. 4.5.3)
Hardness (Shore A) (+/-7)		75	ASTM D2240 (MIL Para. 4.5.4)
Tensile Strength (PSI)	Min.	200	ASTM D412 (MIL Para. 4.5.6)
Elongation (%)	Min/Max.	100/300	ASTM D412 (MIL Para. 4.5.6)
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.	+125	
Lower Operating Temp. (°C)	Min.	-55	ASTM D1329 (MIL Para. 4.5.14)
Compression Deflection (%)	Min.	92	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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