

Electrically Conductive Elastomer CE-023



CE-023 is a silver-filled fluorosilicone capable of 110 dB of plane wave shielding effectiveness at 10 GHz with a continuous temperature range of -65°C to +160°C. **CE-023** is suitable for applications including EMI suppression, hermetic sealing, and grounding applications and resistant to solvents and jet fuels. **CE-023** is qualified to MIL- DTL-83528F **Type F** material. **CE-023** has excellent sealing at extreme temperature, and is also ozone resistant with a long shelf life. **CE-023** can be supplied as, molded parts, and extruded profiles, die cuts, sheet stock. Contact our main office for additional information regarding your specific application.

Elastomer:	Fluorosilicone
Filler Material	Silver (Ag)
Color:	Tan

Electrical Properties

Test Method

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

Electrical Stability

Volume Resistivity (ohm-cm)(as received) (as supplied)	Max.	.002	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.	.010	MIL-DTL-83528F (Para. 4.5.9)
During Vibration (ohm-cm)	Max.	.010	MIL-DTL-83528F (Para. 4.5.13)
After Vibration (ohm-cm)		.002	
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 D224(MIL Para. 4.5.4)
Tensile Strength (PSI)	Min.	250	ASTM D412(MIL Para. 4.5.6)
Elongation (%)	Min/Max	100/300	ASTM D412(MIL Para. 4.5.6)
Tear Strength (PPI)	Min.	40	ASTM D624(MIL Para. 4.5.8)
Compression Set (%)	Max.	60	ASTM D395(MIL Para. 4.5.7)
Upper Operating Temp. (°C)	Max.	+160	
Lower Temperature Flex (°C) (TR-10/TR-70)	Max	-65/-40	ASTM D1329(MIL Para. 4.5.14)
Compression Deflection (%)	Min.	3.5	ASTM D575(MIL Para. 4.5.5)
Fluid Immersion		SUR	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.

NEDC Sealing Solutions • 96 Milk Street, Methuen, MA 01844 • 800-224-6332 • www.nedc.com

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