

Electrically Conductive Elastomer CE-018

CE-018 is Shore A 75 durometer hardness Fluorosilicone elastomer filled with nickel graphite particles as the conductive and shielding media. **CE-018** has good shielding properties and conductivity along with excellent sealing at temperature extremes. It is ozone resistant and has a long shelf life. **CE-018** combines the excellent low temperature performance of silicone with improved chemical resistance using Fluorosilicone. This material can be supplied as molded parts, extruded shapes, and die cut parts or as standard sheet stock. Contact our main office for additional information regarding your specific application.

Elastomer:	Fluorosilicone
Filler Material:	Nickel Graphite
Color:	Dark Grey

Electrical Properties

Test Method

Volume Resistivity (ohm-cm) (as supplied)	Max.	.1	MIL-DTL-83528F	(Para. 4.5.11)
Shielding Effectiveness (db)	Min.		MIL-DTL-83528F MIL-STD-285	(Para. 4.5.12)
100 MHz (E-Field)		100		
500 MHz (E-Field)		100		
2 GHz (Plane Wave)		100		
10 GHz (Plane Wave)		100		

Electrical Stability

After Heat Aging (ohm-cm)	Max.	0.150	MIL-DTL-83528F	(Para. 4.5.15)
After Break (ohm-cm)	Max.	0.200	MIL-DTL-83528F	(Para. 4.5.9)
During Vibration (ohm-cm)	Max.	0.200	MIL-DTL-83528F	(Para. 4.5.13)
After Vibration (ohm-cm)		0.100		
After Exposure to EMP (ohm-cm) (0.9 KAMP/inch of Perimeter)	Max.	0.100	MIL-DTL-83528F	(Para. 4.5.16)

Physical Properties

Specific Gravity (+/-0.25)		2.2	ASTM D792	(MIL Para. 4.5.3)
Hardness (Shore A) (+/-7)		75	ASTM D2240	(MIL Para. 4.5.4)
Tensile Strength (PSI)		200	ASTM D412	(MIL Para. 4.5.6)
Elongation (%)		60	ASTM D412	(MIL Para. 4.5.6)
		250		
Tear Strength (PPI)		40	ASTM D624	(MIL Para. 4.5.8)
Compression Set (%)		30	ASTM D395	(MIL Para. 4.5.7)
Upper Operating Temp. (°C)		+160		
Lower Operating Temp (°C)		-55	ASTM D1329	(MIL Para. 4.5.14)
Compression Deflection (%)		3.0	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.