

Electrically Conductive Elastomer

CE-010



CE-010 is Shore A 80 durometer hardness EPDM (Ethylene Propylene Diene Monomer) elastomer filled with nickel-plated graphite particles as the conductive and shielding media. **CE-010** has good shielding properties and conductivity. This material provides good sealing at temperature extremes, is resistant to NBC (Nuclear, Biological, and Chemical) wash down solutions, and has a long shelf life. This material can be supplied as, molded parts, extruded shapes, die cut parts or standard sheet stock. Contact our main office for additional information regarding your specific application.

Elastomer:	EPDM
Filler Material	Ni/C
Color:	Dark Grey

Electrical Properties

Test Method

Volume Resistivity (ohm-cm) (as supplied)	Max.	.150	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)		80		
500 MHz (E-Field)		70		
2 GHz (Plane Wave)		70		
10 GHz (Plane Wave)		70		

Electrical Stability

After Heat Aging (ohm-cm)	Max.	N/A	MIL-DTL-83528F	(Para. 4.5.15)
After Break (ohm-cm)	Max.	N/A	MIL-DTL-83528F	(Para. 4.5.9)
During Vibration (ohm-cm)	Max.	N/A	MIL-DTL-83528F	(Para. 4.5.13)
After Vibration (ohm-cm)		N/A		
After Exposure to EMP (ohm-cm) (0.9 KAMP/inch of Perimeter)	Max.	N/A	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)		80	ASTM D2240	(MIL Para. 4.5.4)
Tensile Strength (PSI)	Min.	200	ASTM D412	(MIL Para. 4.5.6)
Elongation (%)	Min.	70	ASTM D412	(MIL Para. 4.5.6)
	Max.	260		
Tear Strength (PPI)	Min.	60	ASTM D624	(MIL Para. 4.5.8)
Compression Set (%)	Max.	40	ASTM D395	(MIL Para. 4.5.7)
Upper Operating Temp. (°C)	Max.	+125		
Lower Operating Temp. (°C)	Min.	-40	ASTM D1329	(MIL Para. 4.5.14)
Compression Deflection (%)	Min.	3.0	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.