

Electrically Conductive Elastomer

CE-015



CE-015 is Shore A 40 durometer hardness silicone elastomer filled with silver plated aluminum particles as the conductive and shielding media. **CE-015** has good shielding properties and conductivity. This material has excellent sealing at temperature extremes, is ozone resistant and has a long shelf life. It is recommended for applications where there are dissimilar mating surfaces, presence of salt fog or in uncontrolled environments. As a result of the lower durometer hardness, **CE-015** requires lower compression forces to achieve maximum shielding effectiveness. This material can be supplied as molded, die cut or standard sheets. Contact our main office for additional information regarding your specific application.

Elastomer:	Silicone
Filler Material:	Silver Plated Aluminum
Color:	Blue

Electrical Properties

Test Method

Volume Resistivity (ohm-cm) (as supplied)	Max.	.010	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)		95		
500 MHz (E-Field)		90		
2 GHz (Plane Wave)		85		
10 GHz (Plane Wave)		80		

Electrical Stability

After Heat Aging (ohm-cm)	Max.	.015	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)		.010		
After Exposure to EMP (ohm-cm) (0.9 KAMP/inch of Perimeter)	Max.	.012	MIL-DTL-83528F	(Para. 4.5.16)

Physical Properties

Specific Gravity (+/-0.25)		1.9	ASTM D792	(MIL Para. 4.5.3)
Hardness (Shore A) (+/-7)		40	ASTM D2240	(MIL Para. 4.5.4)
Tensile Strength (PSI)	Min.	90	ASTM D412	(MIL Para. 4.5.6)
Elongation (%)	Min.	100	ASTM D412	(MIL Para. 4.5.6)
	Max.	300		
Tear Strength (PPI)	Min.	25	ASTM D624	(MIL Para. 4.5.8)
Compression Set (%)	Max.	35	ASTM D395	(MIL Para. 4.5.7)
Upper Operating Temp. (°C)	Max.	+160		
Lower Operating Temp. (°C)	Min.	-40	ASTM D1329	(MIL Para. 4.5.14)
Compression Deflection (%)	Min.	8.0	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.

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