

# Electrically Conductive Elastomer

## CE-006-55



**CE-006-55** is Shore A 55 durometer hardness Fluorosilicone elastomer filled with silver plated aluminum particles as the conductive and shielding media. **CE-006-55** has good shielding properties, conductivity and is an excellent environmentally robust material. This material has excellent sealing at temperature extremes, is ozone resistant and has a long shelf life. **CE-006-55** provides good corrosion resistance with Aluminum and other substrates; it is recommended for applications where there are dissimilar mating surfaces, the presence of salt fog, or in uncontrolled environments. 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:	Silver Plated Aluminum
Color:	Tan/Blue

### Electrical Properties

### Test Method

Volume Resistivity (ohm-cm) (as supplied)	Max.	.012	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)		95		
2 GHz (Plane Wave)		90		
10 GHz (Plane Wave)		90		

### 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.	.015	MIL-DTL-83528F	(Para. 4.5.13)
After Vibration (ohm-cm)		.012		
After Exposure to EMP (ohm-cm) (0.9 KAmper/inch of Perimeter)	Max.	.015	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)		55	ASTM D2240	(MIL Para. 4.5.4)
Tensile Strength (PSI)	Min.	150	ASTM D412	(MIL Para. 4.5.6)
Elongation (%)	Min.	60	ASTM D412	(MIL Para. 4.5.6)
	Max.	280		
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.	-55	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.