Electrically Conductive Elastomer CE-017

CE-017 is a silver plated copper-filled fluorosilicone capable of 100 dB of plane wave shielding effectiveness at 10 GHz with a continuous temperature range of -55°C to +125°C. **CE-017** is suitable for applications including EMI suppression, hermetic sealing, resistant to solvents and jet fuels, and grounding applications **CE-017** is qualified to MIL-DTL-83528F **Type C** material. **CE-017** has excellent sealing at extreme temperature, and is also ozone resistant with a long shelf life. **CE-017** can be supplied as, molded parts, and extruded profiles, die cuts, sheet stock.

Elastomer:	Fluorosilicone
Filler Material	Silver/Copper (Ag/Cu)
Color:	Tan

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

Electrical Stability			
Volume Resistivity (ohm-cm) (as supplied)	Max.	.010	MIL-DTL-83528F (Para. 4.5.11)
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)		.010	
After Exposure to EMP (ohm-cm) (0.9 KAmp/inch of Perimeter)	Max.	.015	MIL-DTL-83528F (Para. 4.5.16)

Physical Properties

Specific Gravity	(+/-0.25)	3.75	ASTM D792(MIL Para. 4.5.3)
Hardness (Shore A)	(+/-7)	75	ASTM D224(MIL Para. 4.5.4)
Tensile Strength (PSI)	Min.	180	ASTM D412(MIL Para. 4.5.6)
Elongation (%)	Min/Max	100/300	ASTM D412(MIL Para. 4.5.6)
Tear Strength (PPI)	Min.	35	ASTM D624(MIL Para. 4.5.8)
Compression Set (%)	Max.	35	ASTM D395(MIL Para. 4.5.7)
Upper Operating Temp. (^{0}C)	Max.	+125	
Lower Temperature Flex (^{0}C) (TR-10/TR-70)	Max	-55/-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: Material should not be compressed more than 25% of the total thickness. Please see website for compression set.

DISCLAIMER: Performance of conductive elastomers varies from one application to another. American EMI 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 American EMI Solutions for further information.

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