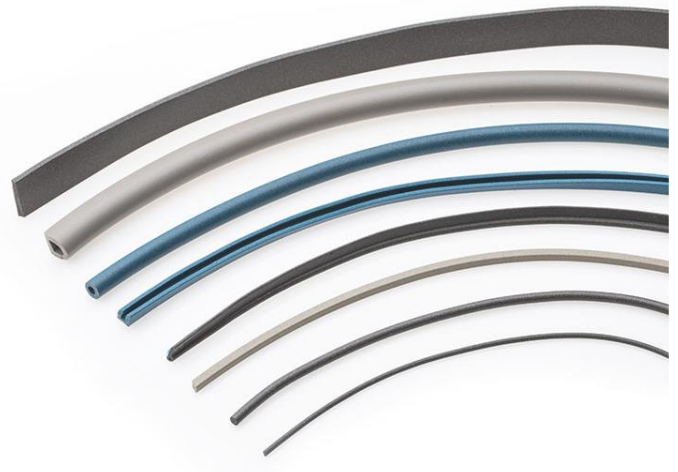


Silver-Copper Filled Elastomer Shielding Gasket in a Silicone Binder

CHO-SEAL 1215 is a silver-copper filled elastomer EMI shielding gasket in a silicone binder which offers good shielding but only fair corrosion performance. It is available in sheet form and extruded into various profiles, allowing for design and manufacturing flexibility. For use in both military and commercial applications, sheet materials can be die-cut or water jet cut to make precision parts in large quantities.

PRODUCT FEATURES:

- This material ensures reliable EMI protection with 100 dB shielding effectiveness at 500 MHz
- Enhances conductivity and shielding properties using a silver-plated-aluminum filler
- Provides flexibility, durability, and resistance to fluids and fuels through a fluorosilicone binder
- Meets MIL-G-83528 Type D requirements initially and after aging, ensuring compliance with military standards
- Offers superior corrosion resistance through unique particle plating, elastomer technology, and corrosion-inhibiting additive
- Available with a thin, acrylic, proprietary electrically conductive, pressure-sensitive adhesive (PSA) backing



IDEAL APPLICATIONS:

- Military equipment and Electronics
- Aerospace Electronics
- Marine Electronics
- Satellite Systems
- Ground Vehicles
- Industrial Equipment
- Highly Corrosive Environments



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Table 4-3: Material Guidelines - Military and Commercial									
	Test Procedure (Type of Test)	CHO-SEAL 6502	CHO-SEAL 6503	CHO-SEAL 1298	CHO-SEAL 1285	CHO-SEAL 1287	CHO-SEAL 1215		
Physical	Molded (M) or Extruded (E)	--	M/E	M/E	M/E	M/E	M/E		
	Conductive Filler	--	Ni/Al	Ni/Al	Passivated Ag/Al	Ag/Al	Ag/Al	Ag/Cu	
	Elastomer Binder	--	Silicone	Fluorosilicone	Fluorosilicone	Silicone	Fluorosilicone	Silicone	
	Type (Ref. MIL-DTL-83528)	--	Not Applicable	Not Applicable	Type D	Type B	Type D	Type A	
	Volume Resistivity, ohm-cm, max., as supplied without pressure sensitive adhesive	CEPS-0002 ^(C) (Q/C)	0.150	0.250	Not Applicable	Not Applicable	Not Applicable	Not Applicable	
		MIL-DTL-83528 (Q/C)	Not Applicable	Not Applicable	0.012	0.008	0.012	0.004	
	Hardness, Shore A	ASTM D2240 (Q/C)	68 ±10	72 ±10	70 ±7	65 ±7	70 ±7	65 ±7	
	Specific Gravity	ASTM D792 (Q/C)	1.85 ±0.25	2.05 ±0.25	2.00 ±0.25	2.00 ±0.25	2.00 ±0.25	3.50 ±0.45	
	Tensile Strength, psi (MPa), min.	ASTM D412 (Q/C)	150 (1.03)	150 (1.03)	180 (1.24)	200 (1.38)	180 (1.24)	200 (1.38)	
	Elongation, % min. or % min./max.	ASTM D412 (Q/C)	100 min	50 min	60/260	100/300	60/260	100/300	
Tear Strength, lb/in. (kN/m), min.	ASTM D624 (Q)	40 (7.00)	35 (6.13)	35 (6.13)	30 (5.25)	35 (6.13)	40 (7.00)/25 (4.38)		
Compression Set, 70 hrs at 100°C, % max. ^(A)	ASTM D395, Method B (Q)	30	30	30	32	30	32		
Thermal	Low Temperature Flex TR10, °C, min.	ASTM D1329 (Q)	-55	-55	-55	-65	-55	-65	
	Maximum Continuous Use Temperature, °C ^(B)	--	125	125	160/200	160/200	160/200	125	
	Thermal Conductivity, W/m-K (Typical) 300 psi (2.07 MPa)	ASTM D5470	1.0	0.9	1.2	2.2	Not Tested	2.1	
Electrical	Shielding Effectiveness, dB, min. ^(F)	Method 1: CHO-TP08 ^(C) (Q)	Method 2	Method 2	Method 2	Method 2	Method 2	Method 2	
	200 kHz (H Field)		Not Tested	Not Tested	55	60	55	70	
	100 MHz (E Field)	Method 2: MIL-DTL-83528 Para. 4.5.12 (Q)	127	127	110	115	110	120	
	500 MHz (E Field)		115	117	100	110	100	120	
	2 GHz (Plane Wave)	Method 3: CHO-TP09 ^(C) (Q)	116	116	95	105	95	120	
	10 GHz (Plane Wave)		127	127	90	100	90	120	
	40 GHz (Plane Wave)		Not Tested	75	Not Tested	75	90		
	Electrical Stability, ohm-cm, max.	Heat Aging	CEPS-0002 ^(C) (Q)	0.200 ^(H)	0.250 ^(H)	Not Applicable	Not Applicable	Not Applicable	Not Applicable
		Resistance During Vibration	MIL-DTL-83528 Para. 4.5.15 (Q/C)	Not Applicable	Not Applicable	0.015	0.010	0.015	0.010
			MIL-DTL-83528 Para. 4.5.13 (Q)	Not Applicable	Not Applicable	0.015	0.012	0.015	0.004
MIL-DTL-83528 Para. 4.5.13 (Q)			Not Applicable	Not Applicable	0.012	0.008	0.012	0.008	
Post Tensile Set Volume Resistivity	MIL-DTL-83528 Para. 4.5.9 (Q/C)	Not Applicable	Not Applicable	0.015	0.015	0.015	0.008		
Regulatory	EMP Survivability, kA per in. perimeter	MIL-DTL-83528 Para. 4.5.16 (Q)	>0.9	>0.9	>0.9	>0.9	>0.9	>0.9	
	RoHS Compliant	--	Yes	Yes	Yes	Yes	Yes	Yes	
	UL 94 Flammability Rating	UL 94	Not Tested	Not Tested	Not Tested	Not Tested	Not Tested	Not Tested	

Note A: Compression set is expressed as a percentage of deflection per ASTM D395 Method B, at 25% deflection. To determine percent recovery, subtract 0.25 of the stated compression set value from 100%. For example, in the case of 30% compression set, recovery is 92.5%.
 Note B: Where two values are shown, the first represents maximum operating temperature for conformance to MIL-DTL-83528 (which requires Group A life testing at 1.25 times maximum operating temperature) and the second value represents the practical limit for exposure up to 1000 hrs. (Compressed between flanges 7-10%). Single values conform to both definitions.
 Note C: Copies of CEPS-0002, CHO-TP08 and CHO-TP09 are available from Parker Chomerics. Contact Applications Engineering.

Note D: Heat aging condition: 100°C for 48 hrs.
 Note E: Heat aging condition: 150°C for 48 hrs.
 Note F: It may not be inferred that the same level of shielding effectiveness provided by a gasket material tested in the fixture per MIL-DTL-83528 Para. 4.5.12 would be provided in an actual equipment flange, since many mechanical factors of the flange design (tolerances, stiffness, fastener location and size, etc.) could lower or enhance shielding effectiveness. This procedure provides data applicable only to the test fixture design of MIL-DTL-83528, but which is useful for making comparisons between different gasket materials. The 40 GHz test data for all materials uses TP08 test method.
 Note G: Heat aging condition: 200°C for 48 hours
 Note H: Heat aging condition: 125°C for 1000 hours