Table 3 *continued*

CONDUCTIVE ELASTOMER SPECIFICATIONS (grouped by filler)											
	Test Procedure (Type of Test)	CHO-SEAL 1291■	CHO-SEAL 1278■	CHO-SEAL V6433■	CHO-SEAL E6434■	CHO-SEAL E6434E●	CHO-SEAL 1285	CHO-SEAL 1287	CHO-SEAL 1298	CHO-SIL 1485	CHO-SEAL 1310■
Conductive Filler		Ag/Cu	Ag/Ni	Ag/Ni	Ag/Ni	Ag/Ni	Ag/Al	Ag/Al	Passivated Ag/Al	Ag/Al	Ag/Glass
Elastomer Binder		Silicone	Silicone	Fluorocarbon/ Fluorosilicone	EPDM	EPDM	Silicone	Fluoro-silicone	Fluoro-silicone	Silicone	Silicone
Type (Ref. MIL-G-83528)		—	Type L	—	—	—	Type B	Type D	Type D	—	—
Volume Resistivity, ohm-cm, max., as supplied (without pressure-sensitive adhesive)	CEPS-0002[a]	0.004	—	—	—	—	—	—	—	—	0.01
	MIL-G-83528 Para. 4.6.11	—	0.005	0.006	0.006	0.05	0.008	0.012	0.012	0.02	—
Hardness (Shore A)	ASTM D2240 (Q/C)	70 ±5	75 ±5	85 ±7	75 ±7	80 ±7	65 ±5	70 ±5	70 ±5	60 ±5	70 ±10
Specific Gravity (±0.25)	ASTM D792 (Q/C)	3.45	4.0	4.8	3.9	3.8	1.9	2.0	2.0	1.7	1.8
Tensile Strength, psi (MPa), min.	ASTM D412 (Q/C)	175 (1.21)	200 (1.38)	400 (2.76)	200 (1.38)	200 (1.38)	200 (1.38)	180 (1.24)	180 (1.24)	180 (1.24)	200 (1.38)
Elongation, % min. or % min./max.	ASTM D412 (Q/C)	75	100/300	50	200	100	100/300	60/260	60/260	100	100
Tear Strength, lb/in. (kN/m), min.	ASTM D624 (Q)	—	30 (5.25)	70 (12.25)	75 (13.13)	70 (12.25)	30 (5.25)	35 (6.13)	35 (6.13)	30 (5.25)	
Compression Set, 70 hrs @ 100°C, % max.[b]	ASTM D395 Method B (Q)	32	32	45	40	40	32	30	30	30	35
Low Temperature Flex TR10, °C, min.	ASTM D1329 (Q)	–45	–55	–25	–45	–45	–65	-55	–55	–40	–40
Maximum Continuous Use Temperature, °C[c]	(Q)	125	125	200	100	100	160/200	160/200	160/200	85	160
Shielding Effectiveness (see Note below) dB, min.	Method (1) CHO-TM-TP08[a]	Method (2)	Method (1)	Method (2)	Method (2)	Method (1)	Method (2)	Method (2)	Method (2)	Method (2)	Method (1)
200 kHz (H Field)		—	70	—	—	—	60	55	55	50	—
100 MHz (E Field)		100	120	105	105	90	115	110	110	100	100
500 MHz (E Field)		100	120	100	100	90	110	100	100	100	100
2 GHz (Plane Wave)	Method (2) MIL-G-83528 Para 4.6.12 (Q)	100	115	90	85	90	105	95	95	90	90
10 GHz (Plane Wave)		100	110	90	85	90	100	90	90	80	80
Electrical Stability ohm-cm, max.	CEPS-0002[a]	0.008	—	—	—	—	—	—	—	—	0.01
Heat Aging	MIL-G-83528 Para. 4.6.15 (Q/C)	—	0.010	0.008[g]	0.0125[h]	0.05[h]	0.010	0.015	0.015	0.06[g]	—
Vibration Resistance During	MIL-G-83528 (Q) Para. 4.6.13 (Q)	—	0.010	NA	NA	NA	0.012	0.015	0.015	0.06	—
Vibration Resistance After		—	0.005	NA	NA	0.05	0.008	0.012	0.012	0.02	—
Post Tensile Set Volume Resistivity	MIL-G-83528 Para. 4.6.9 (Q/C)	—	0.010	—	—	NA	0.015	0.015	0.015	NA	—
EMP Survivability, kA per in. perimeter	MIL-G-83528 Para. 4.6.16 (Q)	—	>0.9	NA	NA	—	>0.9	>0.9	>0.9	>0.3	—

[a] Copies of CEPS-0002 and CHO-TM-TP08 are available from Chomerics

[b] Compression set is expressed as a percentage of deflection per ASTM D395 Method B, at 25% deflection. To determine percent recovery, subtract 1/4 of stated compression set value from 100%. For example, in the case of 30% compression set, recovery is 92.5%.

[c] Where two values are shown: First represents max. operating temp. for conformance to MIL-G-83528 (which requires Group A life testing at 1.25 times max. operating temp.) Second value represents practical limit for exposure up to 1000 hours (compressed between flanges 7-10%). Single value conforms to both definitions.

[g] Heat aging condition: 200°C/48 hrs.

[h] Heat aging condition: 100°C/48 hrs.

■ Not available in extruded form.

● Not available in sheet or molded form

NA Not Applicable

(Q) Qualification

(C) QC Conformance

Note: **It may not be inferred that the same level of shielding effectiveness provided by a gasket material tested in the fixture per MIL-G-83528 Para. 4.6.12 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-G-83528, but which is useful for making comparisons between different gasket materials.**

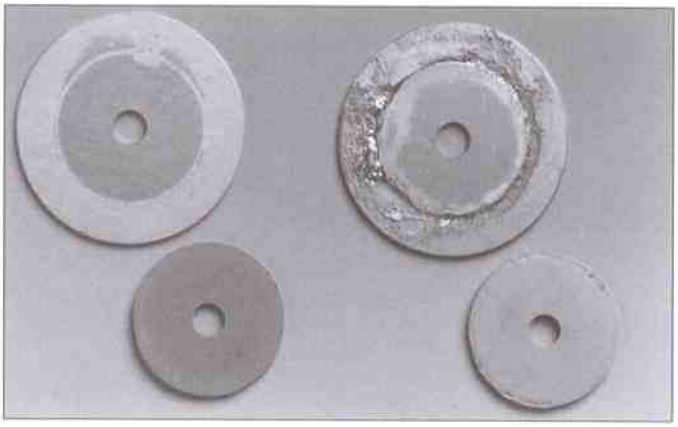
continued

survivability beyond 5 kA/in. Test data is available on request.

Ordering Information

CHO-SEAL 1298 gaskets are available in all standard forms including molded, die-cut and extruded. The material is also available reinforced with Dupont Dacron® fabric, woven wire mesh and/or 3M Nextel® fabric. See page 76 for more information.

For more information on corrosion control, refer to the EMI Shielding Theory and Design Guide, which begins on page 191.



Comparison of corrosion results obtained from CHO-SEAL 1298 conductive elastomer (left) and pure silver-filled elastomer (right) mated with chromated aluminum for 168 hours of salt fog exposure