

EMI Shielding CBRNE/Corrosion Resistant Gasket Material

Nickel Plated Aluminum (Ni/Al) / Nickel Plated Graphite (Ni/C) Filled EPDM

CHO-SEAL® 6460

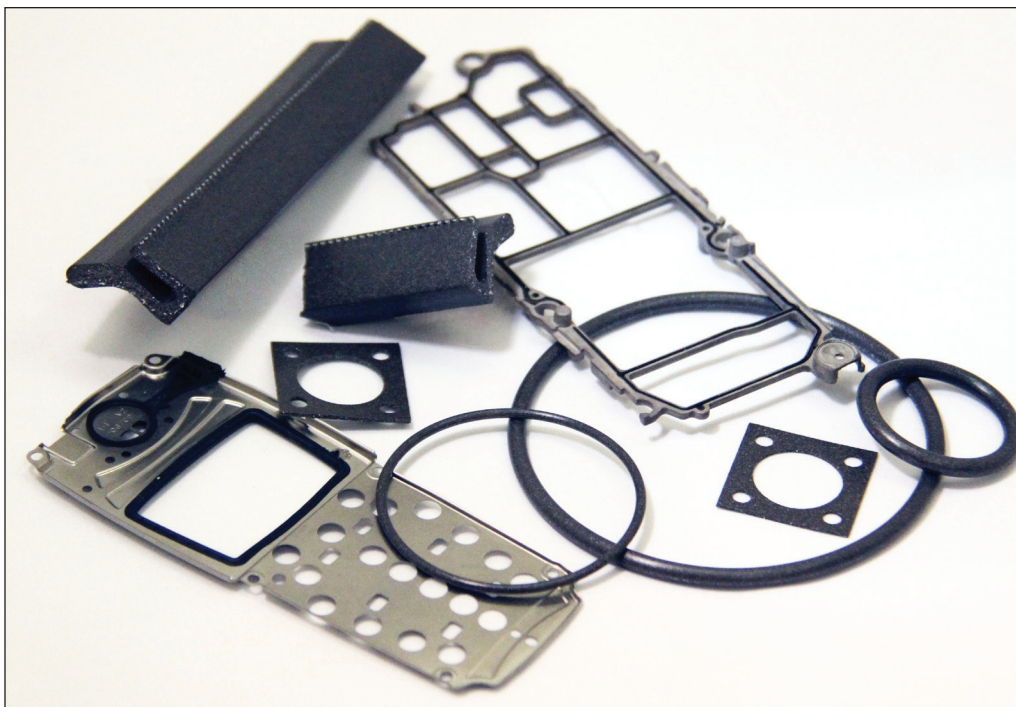


Customer Value Proposition:

CHO-SEAL® 6460 is an electrically conductive molding grade environmental seal specifically formulated to lower your total cost of ownership by reducing the incidence of field repairs and maintenance. Consisting of a precise composite of nickel plated aluminum and nickel plated graphite particles dispersed within an ethylene propylene diene monomer (EPDM), CHO-SEAL 6460 provides the ideal combination of physical and electrical material performance tailored for applications involving harsh outdoor, high humidity and corrosive salt environments.

In addition to providing excellent resistance to nuclear, biological and chemical decontamination fluids, CHO-SEAL 6460 has been proven to be galvanically compatible with chromate conversion coated aluminum, minimizing flange corrosion, pitting and wear over the life of the gasket. As a result, CHO-SEAL 6460 can be deployed as a standalone, chemically resistant environmental EMI seal, eliminating the need for a secondary nonconductive outboard gasket; reducing assembly time, inventory and cost. A single multipurpose seal also allows for narrower flange designs that can condense the overall package size for weight savings or increase space to accommodate other components.

In terms of mechanical performance, CHO-SEAL 6460 provides lower material hardness and compression set compared to other commercially available EMI grade EPDM materials, ensuring a long lasting environmental seal that will decrease the risk of premature repair and/or replacement as a result of contamination from harsh environments.



The stable mechanical properties also guarantee the long-term integrity of the EMI seal, decreasing the need for field diagnostic inspections. The lower deflection force also minimize design complexity by reducing the need for fasteners and allowing for thinner, lighter covers potentially decreasing the total cost of ownership of a durable EMI gasket system by 25-50% while improving field performance.

Product Features:

EPDM Polymer System

- Excellent resistance against caustics, acids, ketones, alcohols, esters and water
- Compatible with nuclear, biological and chemical warfare decontamination fluids
- Outstanding low temperature flex

Nickel Plated Aluminum / Nickel Plated Graphite Particles:

- High shielding effectiveness: 80 – 120 dB
- Low flange galvanic corrosion per CHO-TM 101
- Particle "bite through" for use with corrosion resistant Class 1A chromate treatments

Excellent Compression Set Resistance:

- Excellent mechanical sealing
- No damage to the PCB caused by environmental leaks
- No gaps for EMI leaks
- Low material hardness (65 Shore A)

Low Closure Force:

- Thinner covers
- Fewer fasteners
- Low weight thermoplastic housings
- Greater deflection ranges
- Enhanced seal properties

Lower cost for gasketing in harsh environments by eliminating:

- Outboard non-conductive gaskets
- Metallic (nickel, tin or silver) plating
- Complicated partial flange painting designs
- Outboard enclosures

Available Product Forms

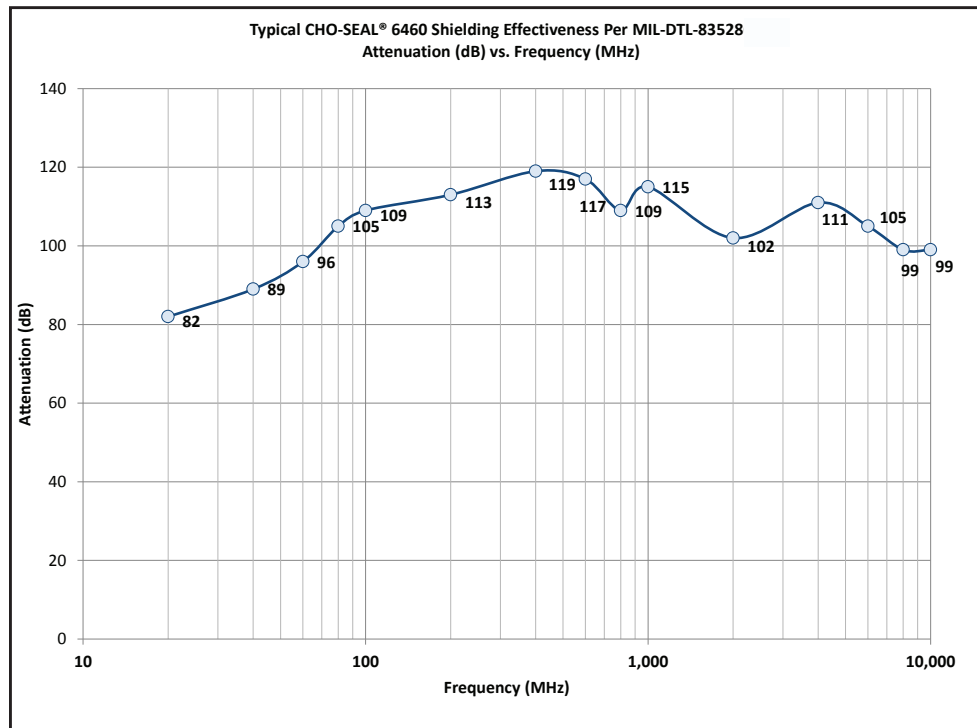
- Flat sheets, die cut parts, custom molded shapes, vulcanized covers
- Please see the Chomerics Conductive Elastomer EMI Gasket Selector guide for a complete listing

Contact Information:

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Product Information - CHO-SEAL® 6460

Material Properties	Test Procedure	Typical Values
Conductive Filler	--	Ni/Al & Ni/C
Elastomer Binder	--	EPDM
Material Grade	--	Molding
Volume Resistivity - Disc, Ω - cm Initial After 48 HR @ 100°C (212°F) After 1,000 HR @ 100°C (212°F) After 1,000 HR @ 85°C (185°F)/85%RH	MIL-DTL-83528	0.345 0.700 0.700 6.000
Shielding Effectiveness, dB Bare 6061 Al Cr [III] - MIL-DTL-5541 Type 2 Class 1A 6061 Al Cr [III] - MIL-DTL-5541 Type 2 Class 3 6061 Al	MIL-DTL-83528 CHO-TM-TP09	80 - 120 55 - 95 55 - 95
Hardness, Shore A Initial @ RT 1,000 HR @ 100°C (212°F) 1,000 HR @ 85°C (185°F)/85%RH	ASTM D2240	65 72 70
Tensile Strength, psi Initial @ RT 1,000 HR @ 100°C (212°F) 1,000 HR @ 85°C (185°F)/85%RH	ASTM D412	255 255 290
Elongation, % Initial @ RT 1,000 HR @ 100°C (212°F) 1,000 HR @ 85°C (185°F)/85%RH	ASTM D412	310 290 330
Specific Gravity	ASTM D792	1.80
Compression Set @ 25% Deflection, % 70 HR @ 100°C	ASTM D395 METHOD B	20
Galvanic Corrosion Wt. Loss @ 504 HR, mg Bare 6061 Al Cr [III] - MIL-DTL-5541 Type 2 Class 1A 6061 Al Cr [VI] - MIL-DTL-5541 Type 1 Class 1A 6061 Al Cr [III] - MIL-DTL-5541 Type 2 Class 3 6061 Al Cr [VI] - MIL-DTL-5541 Type 1 Class 3 6061 Al Cr [VI] - MIL-DTL-5541 Type 1 Class 3 6061 Al - Bleached	CHO-TM 101	28 10 12 20 8 16
Low Temperature Flex: TR10, °C	ASTM D1329	-55
Maximum Use Temperature, °C	--	100
RoHS and REACH Compliant		Yes



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TB 1121 EN August 2013