CHO SEAL 1221 and 1224

Silver Filled for Highest Shielding Effectiveness

Customer Value Proposition:

CHO SEAL Aerospace-200 grade sheet stock materials are highly conductive elastomers which provide both RF suppression and pressure retention. These materials consist of essential silver powders dispersed in silicone or fluorosilicone binders. They are resilient, homogenous composites manufactured from components of the highest quality and are also available in die-cut and moulded shapes. Aerospace-200 grade materials are characterised by exceptional heat stability, maintaining their electrical properties at continuous use temperatures up to 200ºC. They also meet NASA out-gassing specifications. Variations in chemical or physical properties make each material in this grade specifically suited for certain applications.

CHO SEAL 1221 Fluorosilicone intended for use where solvent, oil, or jet-fuel compatibility is required.
CHO SEAL 1224 Medium durometer silicone material.

CHO SEAL conductive elastomers are chemically inert and will resist the effects of most corrosive atmospheres.
Where silver filled CHO SEAL materials are in contact with dissimilar metals in a corrosive environment, coating or edge sealing of the mating surfaces may be required. (For best corrosion resistance Cho Seal 6502, 6503, 1285, 1287 and 1298 are recommended)
CHO SEAL products are not nutrients for fungus or micro-organisms, and will not support their growth. They are moisture resistant, even at high temperatures.

Aerospace 200 grade sheet stock is available in standard thicknesses of 0.51mm, 0.81mm, 1.14mm, 1.57mm, 2.36mm and 3.18mm.

Unique advantages over othe methods of EMI shielding and scaling include:
HEAT STABILITY. When used within the recommended range of continuous-use temperatures. Cho Seal Aerospace 200 grade materials provide reliable shielding and sealing.

REUSEABILITY. They retain their original shape if compressed within recommended limits.

NON SCARRING. They contain no metal wires or knurled surfaces to break or scar mating flanges.

CONFORMABILITY. They conform to uneven or rough surfaces.

Parker Chomerics

ENGINEERING YOUR SUCCESS.

SPECIFICATIONS	Test Procedure	Cho Seal 1224	Cho Seal 1221
Type (Ref MIL-G-83528)		**Type E**	**Type F**
Elastomer Binder		**Silicone**	**Fluorosilicone**
Conductive Filler		**Silver**	**Silver**
Volume Resistivity (ohm-cm, max)	**MIL-G-83528**	**0.002**	**0.002**
as supplied (without psa)	Para 4.6.11		
Durometer (Shore A +/-5)	**ASTM D2240**	**65**	**75**
Specific Gravity (+/-0.25)	**ASTM D792**	**3.4**	**4.0**
Tensile Strength (psi. min)	**ASTM D412**	**300**	**250**
Elongation (% min. max)	**ASTM D412**	**200 / 500**	**100 / 300**
Tear Strength (lb / in. min)	**ASTM D624**	**60**	**40**
Compression Set 70 hours	**ASTM D395**	**45**	**60**
@100ºC (%, max)	Method B		
Low Temperature Flex TR10 (ºC, min)	**ASTM D1329**	**-65**	**-65**
Maximum Continuous Use (ºC)		**160**	**160**
Maximum Intermittant Use (ºC)		**200**	**200**
Thermal Conductivity W/m-K	**ASTM D 5470** Method B	**2.8**	**NA**
SHIELDING EFFECTIVENESS (dB min)			
200 kHz (H Field)		**70**	**70**
100 MHz (E Field)		**120**	**120**
500 MHz (E Field)	**MIL-G-83528**	**120**	**120**
2.0 GHz (Plane Wave)	Para 4.6.12	**120**	**120**
10.0 GHz (Plane Wave)		**120**	**120**
ELECTRICAL STABILITY (ohm-cm, max)			
HEAT AGING	**MIL-G-83528**	**0.010**	**0.010**
During	**MIL-G-83528**	**0.010**	**0.010**
Vibration Resistance After	Para 4.6.13	**0.002**	**0.002**
Post Tensile Set Volume Resistivity	**MIL-G-83528** Para 4.6.9	**0.010**	**0.010**
EMP Survivability (kA per in. perimeter)	**MIL-G-83528** Para 4.6.16	**>0.9**	**>0.9**

***** Compression set is expressed as a percentage of deflection per ASTM D395 Method B at 25% deflection. To determine percent recovery, subtract 0.75 of stated compression set value from 100%. For example, in the case of 30% compression set, recovery is 92.5%

**Where two values are shown, the first represents maximum operation temperature for conformance to MIL-G-83528 (Which requires Group A life testing at 1.25 times maximum operaion test) Second value represents practical limits for exposure up to 1000 hours (compressed between flanges 7-10%)