

# CHO-BOND® 1019

## TWO COMPONENT ELECTRICALLY CONDUCTIVE SILVER-PLATED ALUMINUM POLYTHIOETHER SEALANT



### Customer Value Proposition:

Parker Chomerics CHO-BOND 1019 is a silver-plated aluminum filled, two-component electrically conductive polythioether designed for use as a fillet, gap filler and seam sealant on electrical enclosures for EMI shielding. Its silver-plated aluminum filler provides excellent corrosion resistance and is designed for galvanic compatibility with aluminum substrates. Because of this, CHO-BOND 1019 is galvanically compatible with Parker Chomerics CHO-SEAL® 1298 silver-aluminum filled silicone and CHO-SEAL 1285 silver-aluminum filled fluorosilicone gaskets.

CHO-BOND 1019's custom formulated polythioether polymer system offers excellent fluid and fuel resistance to jet fuels, de-icing solutions, hydraulic fuels and more. It is also silicone-free, removing any silicone contamination concerns while also being easily paintable – eliminating the need and cost of an additional primer application.

CHO-BOND 1019 cures to the touch in 24 hours and provides a robust conductive and environmental seal over a wide range of application temperatures. It has been qualified on hexavalent chromium IAW MIL-DTL-5541 Class 1A and trivalent chromium IAW MIL-DTL-5541 Type II Class 3 in harsh conditions including heat, humidity, and salt fog where it maintains stable EMI shielding performance.

Overcoat adhesion qualified with MIL-PRF-23377 Type II Class N and Mil-DTL-53022 Type II epoxy primers. Minimum recommended bond line for CHO-BOND 1019 is 0.010 inches (0.25mm).

### Contact Information:

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### Features and Benefits:

- Packaged in a pre-measured kit
- No weighing required, mix and dispense in same package, minimizes process scrap
- Excellent galvanic corrosion resistance against aluminum substrates
- Silicone free
- Easily paintable
- Good EMI shielding
- Low VOCs
- Light weight
- More coverage per gram of material, minimal weight added to assembly or vehicle
- Can be used on overhead or vertical surfaces
- 120 minute working life, rapid skin formation, 24 hr handling time, requires no pressure during curing, wide range of application temperatures

### Typical Applications

- Ballistics and guided weaponry
- Ground/transport vehicles
- Military shelters and containers
- Planes, drones, helicopters
- Defense radar systems
- Applications where corrosion resistance is necessary combined with exposure to fuels and fluids

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## CHO-BOND 1019 - Product Information

Table 1 Typical Properties

CHO-BOND 1019		
Typical Properties	Typical Values	Test Method
Polymer	Polythioether	N/A
Filler	Silver Aluminum	N/A
Mix Ratio, A : B (by weight)	2-part	N/A
Color	A: White, B: Black	N/A (Q)
Consistency	Medium Paste	N/A (Q)
Maximum DC Volume Resistivity	0.01 ohm-cm	CHO-95-40-5555* (Q/C)
Minimum Lap Shear Strength**	65 psi (448 kPa)	CHO-95-40-5300* (Q/C)
Specific Gravity	2.15	ASTM D792 (Q/C)
Hardness Shore A	72 (±8)	ASTM-D2240 (Q/C)
Continuous Use Temperature	- 62°C to 160°C (-80 °F to 320 °F)	N/A (Q)
Elevated Temperature Cure Cycle	None	N/A
Room Temperature Cure	1 week**	N/A (Q)
Working Life	2 hours	N/A (Q)
Tack Free Time	8 hours	N/A (Q)
50% Cure Time	16 hours	N/A (Q)
Time to Paint Over	3 days***	N/A (Q)
Shelf Life, frozen (-40°C) unopened	3 months †	N/A (Q)
Minimum thickness recommended	0.010 in (0.25 mm)	N/A
Maximum thickness recommended	0.250 in (6.35 mm)	N/A
Volatile Organic Content (VOC)	124 g/l	Calculated
Theoretical Coverage Area at 0.010" Thick per Pound (454 grams)	1280 in <sup>2</sup> (8258 cm <sup>2</sup> )	N/A
Theoretical Coverage - Length of an 1/8" Diameter Bead per Pound (454 grams)	87 feet (26.5 m)	N/A

Notes: N/A - Not Applicable, (Q/C) - Qualification and Conformance Test, (Q) - Qualification Test

\* This test Method is available from Parker Chomerics.

\*\* Cure is sufficient for handling in 24 hours. Full specification properties are developed after 1 week (168 hours) at room temperature.

\*\*\* Recommend minimum time to wait before applying paint over CHO-BOND 1019. Material will continue to cure after painting.

† This material will ship with a minimum of 60% shelf life remaining.

Table 2 Ordering Information

Product	Weight (grams)	Packaging	Part Number	Primer Included
CHO-BOND 1019	280	6 fluid ounce SEMCO cartridge with dasher rod	50-01-1019-0000	Not required

Please refer to Parker Chomerics Surface Preparation and CHO-BOND Polythioether Application documents for information regarding the proper surface preparation, primer application (if required), and use of these compounds.

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