

CHO-BOND® 1038 and 1121

ONE COMPONENT ELECTRICALLY CONDUCTIVE SILICONE SEALANT (1121 VOC FREE VERSION)



Customer Value Proposition:

CHO-BOND 1038 is a silver-plated copper filled, one-component conductive silicone. It is designed for use as a fillet, gap filler and seam sealant on electrical enclosures for EMI shielding or electrical grounding. Minimum recommended bond line for CHO-BOND 1038 is 0.007 inches (0.18mm). In addition, CHO-BOND 1038 may be used for EMI gasket repair, bonding, and attachment in applications where moderate strength (less than 150 psi) is required. CHO-BOND 1038's moisture cure silicone polymer system allows it to cure to the touch in 24 hours and provides a robust conductive and environmental seal over a wide range of application temperatures. For applications requiring zero volatile organic compounds (VOCs) or minimal shrinkage, Parker Chomerics offers a solvent free version of CHO-BOND 1038 called CHO-BOND 1121.

For best adhesion results, CHO-BOND 1038 should be used in conjunction with CHO-SHIELD 1086 primer. Typical applications include man portable electronics, radar and communication systems, EMI vents, military ground vehicles, and shelters.

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Features and Benefits:

- One component
- Silver plated copper filler
- Moisture cure silicone
- Non corrosive cure mechanism
- Medium paste
- No VOCs version: CHO-BOND 1121
- Easy to use, no weighing or mixing required.
- Excellent conductivity 0.010 ohm-cm
- 30 minute working life, rapid skin formation, 24 hr handling time, requires no pressure during curing, wide range of application temperatures. 1 week for full cure.
- No corrosive by-products generated during curing to damage substrate.
- Easy to dispense, apply and spread, can be used on overhead or vertical surfaces.
- Minimal shrinkage, no permits or ventilation required.



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CHO-BOND 1038 - Product Information

Table 1 Typical Properties

Typical Properties	Typical Values		Test Method
	CHO-BOND 1038	CHO-BOND 1121	
Polymer	Silicone		N/A
Filler	Silver-Plated Copper		N/A
Mix Ratio, A : B (by weight)	1-part		N/A
Color	Gray		N/A (Q)
Consistency	Medium Paste		N/A (Q)
Maximum DC Volume Resistivity	0.010 ohm-cm		CHO-95-40-5555* (Q/C)
Minimum Lap Shear Strength**	150 psi (1034 kPa)		CHO-95-40-5300* (Q/C)
Minimum Peel Strength**	4.0 lb./inch (700 N/m)		CHO-95-40-5302* (Q/C)
Specific Gravity	3.6		ASTM D792 (Q/C)
Hardness	80 Shore A		ASTM-D2240 (Q/C)
Continuous Use Temperature	- 55°C to 125°C (-67 °F to 257 °F)		N/A (Q)
Elevated Temperature Cure Cycle	None		N/A
Room Temperature Cure	1 week***		N/A (Q)
Working Life	0.5 hour		N/A (Q)
Shelf Life, unopened	6 months @ 25°C (77°F)	12 months @ 25°C (77°F)	N/A (Q)
Minimum thickness recommended	0.007 in (0.18 mm)		N/A
Maximum thickness recommended	0.125 in (3.18 mm)		N/A
Volatile Organic Content (VOC)	111 g/l	0 g/l	Calculated
Theoretical Coverage Area at 0.010" Thick per Pound (454 grams)	775 in ² (5000 cm ²)		N/A
Theoretical Coverage - Length of an 1/8" Diameter Bead per Pound (454 grams)	50 feet (15.2 m)		N/A

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

* This test Method is available from Parker Chomerics.

** Minimum values listed are based on using the CHO-SHIELD 1086 primer that typically comes bundled with the CHO-BOND.

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

Table 2 Ordering Information

Product	Weight (grams)	Packaging	Part Number	Primer Included
CHO-BOND 1038	113.4	1.5 fluid ounce aluminum foil tube	50-02-1038-0000	1086
	113.4	1.5 fluid ounce aluminum foil tube	50-02-1038-1000	No
	227	2.5 fluid ounce SEMCO cartridge	50-33-1038-0000	No
	454	6 fluid ounce SEMCO cartridge	50-01-1038-0000	1086
	454	6 fluid ounce SEMCO cartridge	50-31-1038-0000	No
CHO-BOND 1121	454	6 fluid ounce SEMCO cartridge	50-01-1121-0000	1086

Note: Supplied in a plastic 6 fluid ounce cartridge suitable for standard air-operated caulking guns. To achieve maximum shelf life/pot life, caulking gun should be activated with dry bottled nitrogen.

Table 3 Primer Ordering Information

Product	Weight (grams)	Packaging	Part Number
CHO-BOND 1086	10	3 dram glass vial	50-10-1086-0000
	95	4 fluid ounce glass bottle	50-04-1086-0000
	375	1 pint can	50-01-1086-0000

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

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