

CHO-BOND® 2165

TWO COMPONENT CORROSION RESISTANT ELECTRICALLY CONDUCTIVE POLYURETHANE SEALANT



Customer Value Proposition:

CHO-BOND® 2165 is a stabilized-copper filled, two-component polyurethane conductive sealant specifically designed for aerospace and military applications. CHO-BOND 2165 provides a conductive, corrosion resistant protective compound for aluminum and composite airframes used in conjunction with Parker Chomerics CHO-SHIELD 2000 series EMI coatings. CHO-BOND 2165 is a good compound choice for EMI shielding and electrical grounding applications. This thick conductive paste may be used as fastener fill, gap fill, or repair compound for aircraft. CHO-BOND 2165 achieves full properties in less than 4 hours with a combination room temperature cure plus a 113°C cure minimizing aircraft downtime. Due to material shrinkage, multiple applications may be necessary. CHO-BOND 2165 is designed to be used with CHO-SHIELD 1091 Primer, sold separately.

Note: Please contact the Parker Chomerics Applications Engineering Department at 781-935-4850 with additional design questions.

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Features and Benefits:

- Two component
- Stabilized copper filler
- Polyurethane
- Chromate free
- Thick paste
- Mix ratio by weight A:B (100: 7), working life doesn't start until the two components are mixed.
- Excellent conductivity 0.010 ohm-cm, very good corrosion resistance, Survives 2,000 hour in salt spray (MIL-STD-810) against a 6060-T6 aluminum substrate with a MIL-DTL-5541, Type II, Class 3 chromate
- Accelerated heat cure, aircraft fluid resistance, compatible with Parker Chomerics CHO-SHIELD 2000 Series Coatings, can be painted over.
- Environmentally friendly.
- Can be used on overhead or vertical surfaces.



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CHO-BOND 2165 - Product Information

Table 1 Typical Properties

CHO-BOND 2165		
Typical Properties	Typical Values	Test Method
Polymer	Polyurethane	N/A
Filler	Stabilized Copper	N/A
Mix Ratio, A : B (by weight)	100 : 7	N/A
Color	Brownish Red	N/A (Q)
Consistency	Thick Paste	N/A (Q)
Maximum DC Volume Resistivity (Cure Cycle 1)	0.010 ohm-cm	MAT-1003* (Q/C)
Minimum Lap Shear Strength** (Cure Cycle 1)	120 psi (827 Kpa)	CHO-95-40-5300* (Q)
Minimum Peel Strength** (Cure Cycle 1)	1.9 lb./inch (333 N/m)	CHO-95-40-5302* (Q)
Specific Gravity (Cure Cycle 1)	2.9	ASTM D792 (Q/C)
Hardness (Cure Cycle 1)	70 Shore A	ASTM-D2240 (Q/C)
Continuous Use Temperature	- 65 °C to 85 °C (-85 °F to 185 °F)	N/A (Q)
Elevated Temperature Cure Cycle	Cure Cycle Option 1: 2 hours @ 21°C (70°F) followed by 0.25 hour @ 113°C (235°F) Cure Cycle Option 2: 2 hours @ 21°C (70°F) followed by 2.0 hours @ 65°C (150°F)	N/A (Q)
Room Temperature Cure	1 week***	N/A (Q)
Working Life	1.0 hour	N/A (Q)
Shelf Life, unopened	9 months @ 25°C (77°F)	N/A (Q)
Minimum thickness recommended	0.004 in (0.10 mm)	N/A
Maximum thickness recommended	0.060 in (1.52 mm)	N/A
Volatile Organic Content (VOC)	207 g/l	Calculated
Theoretical Coverage Area at 0.010" Thick per Pound (454 grams)	900 in ² (5806 cm ²)	N/A
Theoretical Coverage - Length of an 1/8" Diameter Bead per Pound (454 grams)	60 feet (18.3 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.

** Minimum values listed are based on using the CHO-SHIELD 1091 primer, sold separately.

*** 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 2165	454	2 component, .5 pint aluminum can kit the "B" component is supplied in a 4 ounce plastic bottle	50-01-2165-0000	No
	1135	2 component, 1 pint aluminum can kit the "B" component is supplied in a 4 ounce plastic bottle	50-02-2165-0000	No
	2268	2 component, 1 quart aluminum can kit the "B" component is supplied in a 4 ounce plastic bottle	50-04-2165-0000	No
CHO-SHIELD 1091 Primer	95	4 fluid ounce glass bottle	50-00-1091-0000	Not required
	375	8 fluid ounce plastic bottle	50-01-1091-0000	Not required

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