

CHO-BOND® 584-29

TWO COMPONENT EASY TO USE CONDUCTIVE EPOXY ADHESIVE

Customer Value Proposition:

Parker Chomerics CHO-BOND® 584-29 is a two-component, highly conductive adhesive system that combines the strong adhesive characteristics of epoxy with the superior conductivity of pure silver. In addition to being available in bulk form, the material is now offered in the convenient pre-measured SYRINGE-PAK™ for rapid application. This new syringe system simplifies the mixing of resin and hardening components, and improves dispensing accuracy and efficiency. The result is less compound waste and lower applied cost. CHO-BOND 584-29 conductive adhesive has a low viscosity allowing easier application through fine gauge needles. With its silver filler, the compound provides a low volume resistivity of 0.002 ohm-cm when used as a highly conductive pathway in microelectronics, circuit repair, EMI shielding systems, ground paths, and other applications. The adhesive cures at room temperature in 24 hours.

Curing of CHO-BOND 584-29 can be achieved in as little as 15 minutes with heat to minimize equipment downtime and increase manufacturing throughput. Typical applications include bonding and grounding of electrical components, cold soldering, and bonding and sealing machined enclosures.

Features and Benefits:

- Two component
- Fast heat cure, increases throughput, minimizes equipment downtime.
- Silver filler
- Excellent conductivity 0.002 ohm-cm
- Epoxy
- 30 minute working life, works well over wide temperature range, good chemical resistance >1200 psi lap shear, good for permanently bonding surfaces.
- Multiple packaging options
- No weighing required, mix and dispense in same package, minimizes process scrap.
- Thin paste
- May be dispensed out of very small needles, fill small cracks and voids.
- Low VOCs
- Minimal shrinkage



Application:

The new dispense system for CHO-BOND 584-29 adhesive features a pair of syringes, one containing a hardener and one with the conductive resin, separated by a connector. The compounds are quickly mixed between the syringes, and one syringe is used to apply the mixed conductive adhesive. A needle can be attached to the dispensing syringe to produce finer beads, or to deposit points of adhesive in hard to reach places. Prior to application, ensure that bonding surfaces are clean and free of any greases, oils or contaminants.

General Processing Instructions:

STEP 1

Remove the caps from the 584-29 epoxy (dark blue) and hardener (light blue) syringes. Insert the coupler into the threads of one of the syringes and turn in a clockwise motion. Repeat this step for the second syringe.



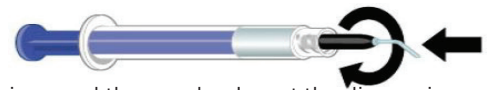
STEP 2

Ensure both syringes are secured tightly with the coupler. Gently mix the epoxy and hardener by filling each syringe 6-8 times.



STEP 3

Remove the empty syringe and the coupler. Insert the dispensing needle and turn clockwise. You are now ready to dispense the 584-29 compound.



CHO-BOND 584-29 - Product Information

Table 1 Typical Properties

Typical Properties	Typical Values	Test Method
Polymer	Epoxy	N/A
Filler	Silver	N/A
Mix Ratio, A : B (by weight)	100 : 6.3	N/A
Color	Silver	N/A (Q)
Consistency	Very Thin Paste	N/A (Q)
Maximum DC Volume Resistivity (Cure Cycle 1)	0.002 ohm-cm	CHO-95-40-5101* (Q/C)
Minimum Lap Shear Strength (Cure Cycle 1)	1200 psi (8274 kPa)	CHO-95-40-5300* (Q/C)
Specific Gravity (Room Temp Cure)	2.5	ASTM D792 (Q/C)
Hardness (Cure Cycle 1)	80 Shore D	ASTM-D2240 (Q)
Continuous Use Temperature	- 55°C to 125°C (-67°F to 257°F)	N/A (Q)
Elevated Temperature Cure Cycle	Cure Cycle Option 1: 0.25 hour @ 113°C (235°F) Cure Cycle Option 2: 2.0 hours @ 65°C (150°F)	N/A
Room Temperature Cure	24 hours	N/A (Q)
Working Life	0.5 hours	N/A (Q)
Shelf Life, unopened	12 months @ 25°C (77°F)	N/A (Q)
Minimum thickness recommended	0.001 in (0.03 mm)	N/A
Maximum thickness recommended	None	N/A
Volatile Organic Content (VOC)	0 g/l	Calculated
Typical Coverage Area at 0.010" Thick per Pound (454 grams)	11,000 in ² (70,968 cm ²)	N/A

Note: N/A – Not Applicable, (Q/C) – Qualification and Conformance Test, (Q) – Qualification Test
 * This test Method is available from Parker Chomerics.

Table 2 Ordering Information

Product	Weight (grams)	Packaging	Part Number	Primer Included
CHO-BOND 584-29	1.0	2 component, premeasured CHO-PAK	50-10-0584-0029	Not required
	2.5	2 component, premeasured CHO-PAK	50-02-0584-0029	Not required
	10 x 3	2 component, premeasured, 10 x 3 gram syringe kits	50-30-0584-0029	Not required
	10	2 component, premeasured CHO-PAK	50-03-0584-0029	Not required
	85	2 component, 4 fluid ounce polypropylene kit	50-00-0584-0029	Not required
	454	2 component, 8 fluid ounce polypropylene kit	50-01-0584-0029	Not required

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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