

## CHO-BOND® 1029 Conductive Adhesive

CHO-BOND® 1029 is a highly conductive silicone adhesive, intended for bonding Chomerics' conductive silicone EMI gaskets to electrically conductive substrates. It is a two-component, silver-plated-copper filled system which cures to a flexible, permanent bond. Unlike 1-part conductive silicone RTV adhesives, its cure can be accelerated with heat.

CHO-BOND 1029 should not be used as an EMI caulk. The material is highly conductive through a bond line of less than 8 mils; but through a bond lines of greater thicknesses, CHO-BOND 1029 electrical conductivity sharply decreases.

Each component of CHO-BOND 1029 is pigmented to give a uniform pink color when thoroughly mixed. Metal substrates must be coated with Chomerics' CHO-BOND® 1085 or 1087 primer before the adhesive is applied. Primer and adhesive should be stored at room temperature.

### PROCESSING

CHO-BOND 1029 should be mixed according to the following procedure:

1. Weigh out 1.0 parts of 1029A and 2.5 parts of 1029B
2. Pour 1029A from its container onto a smooth aluminum, plexiglas or other suitable surface large enough for adequate mixing. [For a 3 oz. (85 g) batch, mixing board should be at least 8in. x 8in. (20.3cm x 20.3cm).]
3. Blend 1029B into 1029A as follows:
  - a) add 1/3 of 1029B and mix (per instructions at right) until homogeneous.
  - b) add another 1/3 of 1029B and mix until homogeneous.

c) add another 1/6 of 1029B and mix until homogeneous.

d) add balance of 1029B and mix until homogeneous. Pot life is now 2.0 hrs. at 70°F (21°C).

### MIXING INSTRUCTIONS

Mix 1029B into 1029A with a folding action until the material is massed. Then mix by spreading the massed material across the board and recollecting on the spatula. This wiping action will produce a smooth, easily spreadable material. The adhesive is homogeneous when silver streaks are no longer visible in the mix.

### APPLICATION

Mixed CHO-BOND 1029 may be applied by use of a spatula or by loading the compound into an air-activated caulking cartridge and applying with appropriate nozzle, followed by spreading with a spatula.

### BONDING PROCEDURE

CHO-BOND 1029 should be applied to a solvent (TCE, PCE or acetone) cleaned surface. With a clean, primer-dampened cloth, wipe a very thin coating of Chomerics' CHO-BOND 1085 or 1087 primer onto the cleaned metal and air dry 30 minutes at room temperature. CHO-BOND 1029 may then be applied to the metal part such that the adhesive thickness will be 5 to 10 mils. The conductive silicone rubber gasket, cleaned with denatured ethanol, may now be applied to the CHO-BOND 1029 coated metal surface. It is necessary to apply a pressure of 2-3 psi (0.14 to 0.21kg/cm<sup>2</sup>) perpendicular to the bond plane during cure. CHO-BOND may be cured according to the following schedule:

30 min.	250°F (149°C) or
45 min.	200°F ( 93°C) or
60 min.	150°F ( 66°C) or
1 week	75°F ( 24°C)

### AVAILABILITY

CHO-BOND 1029 is available in 3 oz. (85 g) and 1 lb. (0.5 kg) kits. Each kit includes resin, hardener, primer and instructions.

- Order by part number, as follows:  
 50-01-1029-0000 [1 lb. (0.5 kg) kit]  
 50-00-1029-0000 [3 oz. (85 gm) kit]

TYPICAL PROPERTIES	
Binder	silicone
Filler	Ag/Cu
Mix Ratio (by wgt.)	1.0:2.5
Consistency	thick paste
Specific Gravity	3.0 ±0.35
Minimum Lap Shear Strength, psi (MPa)	450 (3.11)
Maximum DC Volume Resistivity, ohm-cm	0.06*
Use Temperature	-67 to 257°F (-55 to 125°C)
Elevated Temperature Cure Cycle	0.5 hr. @ 250°F (121°C)
Room Temperature Cure Time	1 wk.**
Working Life	2.0 hrs.
Shelf Life, mos.	6
Coverage,† in. <sup>2</sup> /lb. (cm <sup>2</sup> /g)	1,800 (25.5)
Recommended Thickness, in. (cm)	0.008 max. (0.020)

\*Value represents DC resistance in ohms through a 0.4 in<sup>2</sup> by 0.008 in. (2.58 cm<sup>2</sup> by 0.02 cm) thick sample.

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

† Coverage is at the recommended thickness.

