

**ENGINEERED INDUSTRIAL COATINGS**

LOS ANGELES, CA • CHICAGO, IL • GAINESVILLE, TX

**SERIES 599-Y1399  
COPPER CONDUCTIVE COATING**

A sprayable metallic coating system using a specially formulated non-oxidizing copper as the conductive agent. Developed for use as an RFI and EMI shield for plastic electronic equipment housings. 599-Y2000 can be used on acrylic, ABS and structural foams, e.g. Noryl, Valox, etc. as well as solvent sensitive substrates such as polycarbonate and polystyrene.

**SYSTEM:** One component, air dry.

**SOLIDS:** 29% ± 2% by weight.

**DENSITY:** 8.5 ± .2 lbs. per gallon (1.02 ± 0.03 kg per liter)

**VISCOSITY**  
@75°F ± 3°F  
(24°C ± 2°C): 19 ± 2 Sec. (#2 EZ Viscosity Cup - Mfr. Paul N. Gardner)

**ADHESION:** Excellent to most plastic substrates.

**ATTENUATION:** More than 75 dB from 1 MHz to 1 Ghz.

**THINNER:** Check viscosity after thorough mixing.  
Adjust to 19 seconds (#2 EZ Viscosity Cup) with MEK, if necessary.

**APPLICATION**

**METHOD:** HVLP or standard air gun with fluid recirculation system is recommended. A pressure pot may be used provided that: (1) it has a large diameter, paddle-type agitator to keep copper in suspension and (2) a short translucent MEK-resistant fluid line of 1/8" (3.15 mm) ID or smaller is used (such as Binks Synflex) to prevent settling in the line.

**DRYING TIME:** 30 minutes flash off at room temperature; then 30 minutes @ 140°F. (60°C.) at 2.0 mils (50 microns). Longer if thicker film, shorter if thinner film, to achieve desired resistivity.

**HUMIDITY**

**RESISTANCE:** No change in resistivity or attenuation when tested in accordance with MIL-STD-202 Method 106 - 40 cycles; MIL-STD-810 Method 507 Procedure 5 - 480 hours cycling; Meets UL Specification 746-C.

(CONTINUED OVER)

**SURFACE**

**RESISTIVITY:** <0.05 ohm/sq. @ 1 mil (25 microns) DFT.  
<0.025 ± 0.005 ohm/sq. @ 2 mils (50 microns) DFT. These readings can be achieved under proper conditions: (1) properly mixed paint; (2) film is 100% dry.

**SHIELDING**

**EFFECTIVENESS** Approximately 300 sq. ft. per gallon (7.36 M<sup>2</sup>/liter) at <0.050 ohm/sq at 100% transfer efficiency.

Approximately 150 sq. ft. per gallon (3.68 M<sup>2</sup>/liter) at <0.025 ohm/sq at 100% transfer efficiency.

**STORAGE LIFE:** Recommended storage in unopened containers is 6 months from date of shipment. Older material should have all Q.C. requirements rechecked before using.

**NOTE:** The solvent system of this product is designed for fast drying and early measuring of conductivity. In hot, humid weather the fast drying may result in sporadic blushing. Blushing is a whitening of the surface of the coating caused by condensation of water in a hot, humid environment. The addition of 2-3% (3-4 ounces per gallon) of Butyl Cellosolve (Ethylene-Glycol-Mono-Butyl-Ether) will eliminate blushing.