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## TECHNICAL DATA SHEET

### SERIES 599-Y2000 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. Valox, etc. as well as solvent sensitive substrates such as polycarbonate and polystyrene. For Noryl use 599-Y2000T (Y1371)

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

**SOLIDS:** 29%  $\pm$  2% by weight.

**DENSITY:** 8.5  $\pm$  .2 lbs. per gallon (1.02  $\pm$  0.03 kg per liter)

**VISCOSITY**  
**@75°F  $\pm$  3°F**  
**(24°C  $\pm$  2°C):** 19  $\pm$  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 @ 160°F. (71°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.

**SURFACE**

**RESISTIVITY:**

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

**THEORETICAL  
COVERAGE**

**(COMPUTED FROM  
VOLUME SOLIDS)**

190.4 sq ft. per gallon/1 mil (4.7 m<sup>2</sup>/liter per 25 microns)  
@ 100% transfer efficiency.

**STORAGE LIFE:**

Recommended storage in unopened containers is 12 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.

10/08

**Before using this or any other product please consult material safety data sheet for proper handling procedures. The information provided herein was believed by Spraylat Corporation to be accurate or prepared from sources believed to be reliable, but it is the responsibility of the user to investigate and understand the information, to comply with the law, and to determine whether the product is suitable for and the procedures applicable to safe handling for its intended use. Spraylat Corporation makes no warranty of any kind, express or implied, concerning any product or merchantability or fitness thereof for any purpose or concerning the accuracy of any information.**