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Technical Data Sheet

Conducting Silver Paint

Catalog Number: 60805

Product Description: Conducting Silver Paint is a suspension of specially prepared silver powder combined with an organic binder. It is an air-dry formulation and is formulated to produce electrically conductive paths on paper, plastic, rubber, cloth, wood, etc., and may be applied by dip or spray.

This highly conductive paint exhibits versatility and is useful over a broad range of applications:

- Electroforming
- Electroplating (as a base)
- Tantalum capacitors
- Static shielding
- Magnetic tapes

Application Method: Conductive silver paint is formulated for application by spraying or dipping. This paint is produced to a consistency suitable for use as received and requires only stirring to redisperse the solids.

The recommended thinner, butyl acetate, may be added, with thorough blending, to replace solvent loss or to make slight adjustments for ease of application. Only the recommended thinner should be used. In handling and using organic solvents, the safety precautions recommended by the solvent supplier should be observed.

Effect of Curing Temperatures: In an air-dry system, the metal-binder film is formed when the solvent system is evaporated or “dried”. If given sufficient time, this product will adequately dry or cure at room temperature. A more effective result is achieved in much less time through low temperature thermal exposure followed by a moderately higher temperature cure. Optimum properties are developed only after the paint has been properly dried or cured. The drying or curing cycle is a function of time versus temperature up to the point of degradation of the organic system (binder). In a system which will dry or cure in from 12 to 16 hours at room

temperature, the same degree of drying or curing can be achieved in less than 2 hours at 60°C and in less than 1 hour at 100°C.

Failure to achieve rated conductivity indicates either that the applied paint is too thin with poor uniformity or that it has been incorrectly dried and/or cured.

Electroplating/Electroforming: The use of Conductive Silver Paint as a basis for electroplating and electroforming is widespread. Ease of application, high conductivity and dimensional stability mark this product as a leader in the field.

Storage and Shelf Life: Conductive Silver Paint should be stored at room temperature. Shelf life of material in unopened containers is 1 year from the date of shipment and 6 months in an opened and properly stored container.

Coverage: Coverage of Conducting Silver Paint depends on the thickness of application. Dip application will normally result in a film thickness of 13-18 µm. Thinner films (which increases coverage) can be applied by thinning the paint with butyl acetate. However, this will result in a cured film with a higher sheet resistivity. Thicker films can be achieved by simply spraying more material.

Typical Specifications	
Test	**60805 Value**
Percent Silver (wt/vol)	43
Viscosity (Pa·s)	0.200-0.280 (Brookfield LVT, spindle #2, 60rpm)
Thinner	Butyl Acetate
Sheet Resistivity	<0.1 ohms/square
Cure	1hr @ 60°C
Coverage (cm^2/g) @ 50 µm wet film thickness	120