

Product
Bulletin

61CV1

AN AIR DRY ELECTRICALLY CONDUCTIVE ONE PART EPOXY

GENERAL DESCRIPTION

61CV1 is a single component epoxy, formulated with pure silver power combined with organic binders and solvents to produce electrically conductive paths, films or patterns over non-conductive substrates.

61CV1 shows slight settling when stored for a long period of time, no caking and will re disperse to a smooth homogeneous state.

61CV1 formulation produces electrically conductive paths on a wide variety of surfaces including plastics, rubber, cloth, thermoplastic, paper, wood and many others.

61CV1 designed for use in diversified applications as microwave EMI & RFI shielding, in the assembly or repair of printed circuit boards, waveguides, electronic modules, flat cable, static shielding, connections, and circuitry.

- PC Board repair
- Electroplating Base
- Electroforming Base
- Printed Circuitry
- Tantalum Capacitors
- Static Shielding
- Electrical Games and toys
- Recording Tape
- Microwave Applications
- Tabulating Cards

SPECIFICATIONS:

61CV1 SPECIFICATIONS

MEETS MIL-C-470689(M1)(1)12APRIL1990

SPECIFICATION FOR HIGHLY CONDUCTIVE, EPOXY BASE SILVER COATING MATERIAL USED FOR ELRCTRONIC SHIELDING PURPOSES.

HANDLING CHARACTERISTICS

Color: Silver

%Silver: 70-72

Density: 2.35 gm/cc (cured)

Catalyst : Anhydride

Workable Pot Life: 24 months from the

Date of manufacture when stored in original unopened container at temperature less than 26.7 degrees C

Viscosity : 6800 cps

@ 25°C cps HBF Brookfield, spindale#4, 10rpm

Recommended Cure:

After air dry and tack free

Heating to 40-50°C will accelerate the drying Time,

longer cure schedules may be required to optimize properties

Temperature °C(°F)	Time Hours
200(392)	0.7
180(356)	1.5
160(320)	2.5

PHYSICAL CHARACTERISTICS

Typical Physical Properties (Cured film)

Sheet Resistivity : 10-12 mΩ/sq

Bulk Resistivity: 3x10⁻⁵ Ω/cm

Adhesion Tensile Strength : 1000 N/cm² 1500 lb/in²

Lap shear Strength : 1400 N/cm² (2000 lb/in²)

Thermal Conductivity 0.04J/(cm.s. °C) : [0.01cal/(cm.s. °C)]

Specific heat 0.30J/(g. °C) : [0.07 cal/g. °C]

Coefficient of Thermal Expansion 3x10⁻⁵ (m/m)/ °C

Modulus of elasticity 4x10¹⁰ Pa (6x10⁵ lb/in²)

Poisson's Ratio 0.35



APPLICATION

61CV1 conductive silver is formulated for application by brushing, spraying, dipping, banding or stylus.

Recommended thinners may be added for individual compositions, to replace solvent losses or to make slight adjustments. Only the recommended thinner should be used.

In handling and using organic solvents, the safety precautions recommended by the solvent supplier should observe.

Safety and Handling

This product contains organic solvent.

The following precautions should be exercised:

- Use with adequate ventilation
- Avoid prolonged contact with skin, if contact with skin occurs, wash area immediately with a soap and water
- Avoid prolonged breathing of vapor
- Dangerous if swallowed
- Refer to MSDS for more details