



# **ELECTRICALLY CONDUCTIVE ONE PART LOW COST EPOXY**

**Technical Product Bulletin** 

## **PRODUCT DESCRIPTION:**

AA-DUCT CG2 is a single component epoxy, formulated with silver coated ceramic that results in lower material costs without adversely sacrificing the properties obtained with a pure silver formulation. This concept opens the door to a wide range of applications previously prohibited by the much higher cost of Conventional silver conductive.

AA-DUCT CG2 Formulated with Silver coated ceramic power combined with organic binders and solvents to produce electrically conductive paths, films or patterns over Non-conductive substrates.

AA-DUCT CG2 formulation produces electrically conductive paths on a wide variety of surfaces including plastics, rubber, cloth, thermoplastic, paper, wood and many others.

AA-DUCT CG2 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.

### **PRODUCT PROPERTIES:**

Appearance	Silver Coated ceramic	
%Silver coated ceramic	76	
Cure Type	Heat cure	
Benefits	High strength	
	Perfect bond	
	EMI & RFI shielding	
	Wave guides	
Substrates	Excellent choice for the Integrated Circuits,	
	aluminum, copper, magnesium, steel,	
	bronze, nickel, kovar, ceramic, glass,	
	phenolic and G-10 epoxy glass boards.	
Catalyst	Anhydride	
Typical Applications	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.	

### **UNCURED PROPERTIES:**

Viscosity @ 25 °C cps	6,800
Silver coated ceramic, %	65 to 75
Pot Life	6 months
Shelf life	6 months

#### **CURED PROPERTIES:**

Sheet Resistivity	<0.1 Ω/sqcm
Lap shear strength	2000 Lb/in2 (1400 N/cm2)
Adhesion Tensile Strength	1000 N/cm2 (1500 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

#### **CURE SCHEDULE:**

0.7 hours	@ 200°C, 392°F
1.5 hours	@ 180°C, 356°F
2.5 hours	@ 160°C, 320°F

### **GENERAL INFORMATION:**

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.

### **HOW TO USE:**

AA-DUCT CG2 conductive silver coated 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 be observed.

### **AVAILABILITY:**

This epoxy can be supplied in many different packages.

# **Atom Adhesives**

Email: info@atomadhesives.com 200 Allens Ave, Providence, RI 02903 Phone: (888) 522-6742 - Fax: (877) 522-6742