

Room Temperature Cure Conductive Silver  
Flexible Epoxy Adhesive  
*Technical Product Bulletin*

**PRODUCT DESCRIPTION:**

AA-DUCT 916 is an electrically conductive, silver-filled epoxy formulation recommended for electronic bonding, coating, and sealing applications that require high flexibility coupled with good electrical and mechanical properties.

AA-DUCT 916 is two-part, smooth paste adhesive of refined pure silver and epoxy resin components. It is free of solvents and copper or carbon additives. It develops strong, durable, resilient, electrically and thermally conducting bonds and coatings between many different and dissimilar materials such as metals, ceramics, glass and plastic insulates.

AA-DUCT 916 cures at room temperature and can be used as a flexible "cold-solder" for heat-sensitive components where hot-soldering is impractical. It also can be used for the assembly and repair of electrical modules, flexible circuits, wave guides, flat cable and high frequency shields.

**PRODUCT INFORMATION:**

<b>Appearance</b>	Silver
<b>Cure Type</b>	Heat cure or Room temperature
<b>Benefits</b>	High strength Perfect bond Cold solder for heat sensitive components
<b>Mix Ratio by weight</b>	100:115 / Resin: Hardener
<b>Substrates</b>	Excellent choice aluminum, copper, magnesium, steel, bronze, nickel, kovar, ceramic, glass, phenolic and G-10 epoxy glass boards.
<b>Typical Applications</b>	It can be used as a flexible "cold-solder" for heat-sensitive components where hot-soldering is impractical. The assembly and repair of electrical modules, flexible circuits, wave guides, flat cable and high frequency shields.

**UNCURED PROPERTIES:**

<b>Viscosity @ 25 °C cps</b>	Paste
<b>Specific Gravity, mixed</b>	2.85
<b>Reactive solids contents, %</b>	100
<b>Pot Life</b>	3 hours
<b>Shelf life</b>	1 year

**CURED PROPERTIES:**

<b>Hardness, Shore D</b>	64
<b>Volume Resistivity ohm. cm</b>	<0.0001

**CURE SCHEDULE:**

<b>1 to 4 Hours</b>	@ 65°C
<b>24 hours</b>	@ 25°C

**ELECTRICAL PROPERTIES:**

<b>0.00060 ohm-cm</b>	cured 5 min @ 160°C
<b>0.00080 ohm-cm</b>	cured 24 hrs @ 25°C cured 2 hrs @ 65°C
<b>0.0012 ohm-cm</b>	cured 15 min @ 150°C
<b>0.0034 ohm-cm</b>	cured 1 hr @ 110°C

**THERMAL PROPERTIES:**

<b>Thermal Conductivity</b>	10.4 BTU-in/hr-ft <sup>2</sup> -°F
<b>Glass Transition Temperature, Tg</b>	5.00 °C, 41.0 °F
<b>Operating Temperature</b>	-60 to 110 °C

**GENERAL INFORMATION:**

For safe handling information on this product, consult the Material Safety Data Sheet, (MSDS).

**HOW TO USE:**

- Carefully clean and dry all surfaces to be bonded
- Apply AA-DUCT 916 completely mixed adhesive to the prepared surfaces, and gently press these surfaces together. Contact pressure is adequate for strong, reliable bonds; however, maintain contact until adhesive is completely cured.
- Some separation of components is common during shipping and storage. For this reason, it is recommended that the contents of the shipping container be thoroughly mixed prior to use.
- Some ingredients in this formulation provided may crystallize when subjected to low temperature storage. A gentle warming cycle of 52°C for 30 minutes prior to mixing components may be necessary. Crystallized epoxy components do not react as well as liquid components and should be re-dissolved prior to use for best results.

**AVAILABILITY:**

This epoxy can be supplied in many different packages

**Atom Adhesives**

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