

AA-DUCT 919

Conductive Silver Epoxy Adhesive

Technical Product Bulletin

PRODUCT DESCRIPTION:

AA-DUCT 919 is an electrically conductive, silver-filled epoxy formulation recommended for high performance bonding, coating, and sealing applications with good electrical and mechanical properties. Optimized for acoustic marine applications.

AA-DUCT 919 is two-part one to one mix ratio, smooth paste adhesive of refined pure silver and epoxy resin components free of solvents. 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.

AA-DUCT 919 cures at room temperature or more rapidly at elevated temperature and can be used as a "cold-solder" for heat-sensitive components where hot-soldering is impractical. It is 100 % reactive also can be used for the assembly and repair of electrical modules, electrical circuits, wave guides, and many industries.

PRODUCT INFORMATION

Appearance	Silver
Cure Type	Room temperature or heat cure
Benefits	high strength Perfect bond Cold solder for high-sensitive components
Mix Ratio by weight	100:100 / Resin: Hardener
Substrates	Excellent choice aluminum, copper, magnesium, steel, bronze, nickel, kovar, ceramic, glass, phenolic and G-10 epoxy glass boards, PCB.
Operating Temperature	-20 °C to 140 °C

UNCURED PROPERTIES:

Viscosity @ 25 °C cps	Paste
Specific Gravity, mixed	2.85
Reactive solids contents, %	100
Pot Life	1.5 hours
Shelf life	1 Year

CURING SCHEDULE:

30 minutes	@ 100°C
2-3 hours	@ 60°C
24 hours	@ 25°C

CURED PROPERTIES:

Hardness, Shore D	85
Lap shear strength, psi	5 N/mm2 700 psi
Volume Resistivity ohm. cm	< 0.0001
Thermal Expansion Coefficient	1.5 (cm / cm / °C • 10-5)
Thermal Conductivity	100 btu / hr / ft2 / °F / in
Tensile Strength, psi	9500
Compressive Strength, psi	14000
Heat Distortion, °C	95

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 919 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.

