

Pure silver filled electrically conductive epoxy
Maximum continuity of conductivity.

Technical Product Bulletin

PRODUCT DESCRIPTION:

AA-DUCT 902 is an epoxy adhesive and coating formulation based on pure silver. This versatile silver formulation offers the maximum continuity of conductivity with an electrical resistivity value of less than 1×10^{-4} ohm-cm.

AA-DUCT 902 is also characterized by a wide operating temperature range from -50 to $+170^\circ\text{C}$. Passed NASA low outgassing tests.

AA-DUCT 902 is recommended for electronic bonding and sealing applications that require both fine electrical, thermal and mechanical properties.

GENERAL PROPERTIES:

Appearance	Silver
Cure Type	Heat cure or Room Temperature
Benefits	<ul style="list-style-type: none"> • High strength • Perfect bond • Cold solder for heat sensitive components
Mix Ratio by weight	100:5 / Resin: Hardener
Substrates	Excellent choice aluminum, copper, magnesium, steel, bronze, nickel, kovar, ceramic, glass, phenolic and G-10 epoxy glass boards.
Typical Applications	Electrical, conductive, rmi/efi shielding, circuitry, printed circuit board and electronics repair

UNCURED PROPERTIES:

Viscosity @ 25 °C cps	Paste
Specific Gravity, mixed	2.79
Reactive solids contents, %	100
Pot Life	1 Hour
Shelf life	1 year

CURE SCHEDULE:

15 minutes	@ 100°C
45 minutes	@ 50°C
24 hours	Room temperature

CURED PROPERTIES:

Hardness, Shore D	85
Shrinkage linear in/in	0.0003
Lap shear strength, psi	9400
Volume Resistivity ohm. cm	0.0001
Thermal Expansion Coefficient, (cm / cm / °C · 10-5)	1.5
Thermal Conductivity, W/mk:	2.99
Tensile Strength, psi:	9,500
Compressive Strength, psi	14,000
Heat Distortion, °C	170
Operating Temperature °C	-50 to +170
NASA Outgassing- Passed	TML, % 0.64 CVCM 0.05

GENERAL INFORMATION:

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

HOW TO USE:

1. Carefully clean and dry all surfaces to be bonded.
2. Apply AA-DUCT 902 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.
3. 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.
4. 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..

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