

PRODUCT DESCRIPTION:

AA-DUCT 903 is an epoxy adhesive and coating formulation based on Nickel. This epoxy nickel formulation offers the maximum continuity of conductivity with an electrical resistivity value of less than 3.8×10^{-2} ohm-cm.

AA-DUCT 903 is recommended for electronic bonding and sealing applications that require both fine electrical and mechanical properties.

AA-DUCT 903 has been used extensively in such diversified applications as microwave EMI & RFI shielding, in the assembly or repair of printed circuit boards, wave guides, electronic modules, flat cable, high frequency shields, connections, circuitry and as a cold solder for high-sensitive components where hot-soldering is impractical.

GENERAL PROPERTIES:

Appearance	Grey
Cure Type	Heat cure or Room temperature
Benefits	<ul style="list-style-type: none"> • High strength • Perfect bond • Cold solder for high-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

AVAILABILITY :

This epoxy can be supplied in many different packages.

CURED PROPERTIES:

Hardness, Shore D	85
Shrinkage linear in/in	0.003
Tensile Strength, psi	9500
Volume Resistivity ohm. cm	< 0.038
Compressive Strength, psi	14,000
Minimum Bond Line Thickness	1 mm

CURE SCHEDULE:

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

THERMAL CONDUCTIVITY:

Thermal Conductivity, but / hr / ft2 / °F / in:	9.4
Thermal Expansion Coefficient (cm / cm / °C · 10-5)	1.5
Heat Distortions, °C	170
Operating Temperature Range, °C	-50 to +170
Glass Transition Temperature	50°C

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 903 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.

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