# AA-DUCT 300HT



## **High Temperature Electrically Conductive Epoxy Technical Product Bulletin**

## **PRODUCT DESCRIPTION:**

AA-DUCT 300HT is a two-part silver filled epoxy specially designed for elevated temperature environment and making electrical and mechanical attachments on electrical components and devices.

AA-DUCT 300HT is easy to mix and apply.

AA-DUCT 300HT mixture will have a longer pot life and exhibit high deflection temperatures, the exotherm during the cure is low.

AA-DUCT 300HT is an excellent adhesive/sealant forming durable, rigid bonds that resist to thermal cycling, excellent chemical resistance and good retention of mechanical properties at elevated temperature.

## **GENERAL PROPERTIES:**

Appearance	Silver	
Curing	Room temperature followed by heat cure	
Benefits	<ul> <li>Electrical devices</li> <li>Tooling</li> <li>Durable, potting and casting</li> <li>Molding</li> </ul>	
Mix Ratio by weight	100:6 / Resin: Hardener	
Typical Application	Longer pot life for potting smaller and larger parts application. Good gap filling. High adhesive strength. Good mechanical properties at elevated temperature.	

#### **UNCURED PROPERTIES:**

Specific Gravity, mixed	2.9
<b>Reactive solids contents, %</b>	100
Viscosity cps @25°C mixed	Smooth paste
Pot Life	24 hours
Shelf life	1 Year

#### **ELECTRICAL AND MECHANICAL PROPERTIES:**

Tensile Strength, psi	1700
Volume Resistivity Ω-cm	0.0001
<b>Operating Temperature</b> °F	-20 to 572

#### **CURED PROPERTIES:**

Hardness, Shore D	89
Dielectric strength, volts/mil	420

#### **CURE SCHEDULE:**

CURE CYCLE	2 hours at 100°C and
	4 hours at 175 °C

#### CHEMICAL RESISTANCE:

CURE CYCLE	2 hours at 100°C and 4 hours at 175 °C
3 hours acetone boil	
% weight gain	1.5
24 hours water boil % weight gain	1.38

#### **GENERAL INFORMATION:**

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

### HOW TO USE:

- Carefully clean and dry all surfaces to be bonded. 1.
- Apply AA-DUCT 300HT as a completely mixed adhesive to the 2. 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 3. 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 result.

## **AVAILABILITY:**

This epoxy can be supplied in many different packages.

## **Atom Adhesives**

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