

**LOW VISCOSITY THERMALLY CONDUCTIVE ELECTRICALLY INSULATING
EPOXY COMPOUND**
Technical Product Bulletin

PRODUCT DESCRIPTION:

AA-BOND EP30AN is a two part epoxy for high performance potting, sealing, coating and bonding which improve heat transfer while maintaining electrical insulation.

AA-BOND EP30AN will cure at room temperature or more rapidly at elevated temperatures.

AA-BOND EP30AN is an excellent adhesive/sealant forming durable, rigid bonds that resist to thermal cycling and chemicals including water, oils, etc. over the wide temperature range of -55°F to 245°F. The coefficient of thermal expansion is low.

AA-BOND EP30AN is used in applications where thermal conductivity, electrical isolation properties are required.

AA-BOND EP30AN bonds to itself and to metals, silica, alumina, others ceramics, glass, plastics and many other materials.

GENERAL PROPERTIES:

Appearance	Grey
Curing	Room temperature or Heat cure
Benefits	<ul style="list-style-type: none"> • Strong • Resist thermal cycling • Durable • High impact bonds at room temperature
Mix Ratio by weight	100:10 / Resin: Hardener
Typical Application	Low viscosity for potting application Good gap filling High adhesive strength Good thermal conductivity

UNCURED PROPERTIES:

Specific Gravity, mixed	2.44
Reactive solids contents, %	100
Pot Life	30 minutes
Shelf life	1 Year

THERMAL PROPERTIES:

CTE, linear	15.0 $\mu\text{in/in-}^\circ\text{F}$ @Temperature 68.0 $^\circ\text{F}$
Thermal Conductivity	6.94 BTU-in/hr-ft ² - $^\circ\text{F}$
Operating Temperature	-55 to 245 $^\circ\text{F}$

CURED PROPERTIES:

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

CURE SCHEDULE:

2 – 4 Hours	@ 65 $^\circ\text{C}$
24 Hours	@ 25 $^\circ\text{C}$

ELECTRICAL PROPERTIES:

Volume Resistivity	5.50e+14 ohm-cm 4.00e+13 ohm-cm @Temperature 212 $^\circ\text{F}$
Dielectric Constant	6.2 @Frequency 1000 Hz
Dielectric Strength	420 volts/mil

GENERAL INFORMATION:

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

HOW TO USE:

1. Carefully clean and dry all surfaces to be bonded.
2. Apply AA-BOND EP30AN 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 $^\circ\text{C}$ 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.

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