

**PRODUCT DESCRIPTION:**

AA-BOND F113 is an Optically Clear, low viscosity, High impact epoxy adhesives developed for bonding and small volume potting of plastic or glass optical fibers, lenses and prisms, LED displays, and other optical components.

AA-BOND F113 is recommended for laminating, bonding, and sealing applications where excellent wetting, good pot life and improved impact strength properties are required.

AA-BOND F113 is two parts adhesive easily mixed and cured at room temperature and develops strong bond to glass and glass fibers, ceramics, many metals and most rigid plastics.

AA-BOND F113 bonds offer resistance to mechanical impact and thermal shock, and is also resistant to weather, water, gases and vapors, petroleum products, and mild acids and alkalis.

**PRODUCT CHARACTERISTICS:**

<b>Appearance</b>	clear
<b>Components</b>	2 component - requires mixing
<b>Mix Ratio, by weight</b>	100:30 / Resin:Hardener
<b>Benefits</b>	<ul style="list-style-type: none"> <li>• Low viscosity</li> <li>• Thermal shock and impact resistant</li> <li>• Low stress connections</li> </ul>
<b>Cure Type</b>	Room temperature or Heat Cure
<b>Typical Applications</b>	Fiber optic assembly, multimode and single mode connectors, small potting and sealing applications

**UNCURED PROPERTIES:**

<b>Viscosity @ 25 °C, cps</b>	175
<b>Thixotropic Index</b>	1.0
<b>Specific Gravity</b>	1.23
<b>Pot Life</b>	2 hours
<b>Shelf life</b>	1 year

**MECHANICAL PROPERTIES:**

<b>Hardness, Shore D</b>	78
<b>Adhesive Bond Strength</b>	4000 psi <i>Lap shear, alum to alum, 2 hrs @ 65°C</i>

**CURE SCHEDULE:**

<b>24 hours</b>	@ 25°C
<b>1 to 2 hours</b>	@ 65°C

**CURED PROPERTIES:**

<b>Coefficient of Thermal Expansion, cm/cm/°C</b>	6.20x10 <sup>+01</sup>
<b>Water Absorption</b> <i>After 24 hours saturation, %</i>	0.07
<b>Refractive Index</b>	1.51
<b>Transmission, Visible</b>	97%

**ELECTRICAL PROPERTIES:**

<b>Volume Resistivity</b>	9.00e+8 ohm-cm
<b>Dielectric Constant</b>	4.8 <i>@Frequency 1000 Hz</i>
<b>Dielectric Strength</b>	430 kV/in

**THERMAL PROPERTIES:**

<b>CTE, linear</b>	30.6 μin/in-°F <i>@Temperature 68.0 °F</i>
<b>Operating Temperature</b>	-60 to 100 °C
<b>Glass Transition</b> <i>Temperature (Tg), ultimate, °C</i>	45.0 °C, 113 °F

**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-BOND F113 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.

**Atom Adhesives**

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