

Optically Clear, Low Viscosity Blush-Free Epoxy Adhesive  
*Technical Product Bulletin*

**PRODUCT DESCRIPTION:**

AA-BOND F114 is a clear, low viscosity, room temperature cure, epoxy system with good optical properties that contains no solvents, has excellent wicking and wetting characteristics, and adheres strongly to glass, ceramics, most metals and plastics. The combination of low viscosity, blush-free cure under high humidity conditions, plus clarity and high spectral transmittance, recommends it for fiber optic (glass and plastic) assembly and repair applications and other high performance electronic and aerospace applications that include structural laminating, lens and prism assembly, and small volume optical potting. Formulation offset to: Hysol TRA-BOND F114 / LOCTITE ECCOBOND F114

AA-BOND F114 provides excellent resistance to salt solutions, mild acids and alkalis and many other chemicals including petroleum solvents, lubricating oils and alcohol. This material may have a blue tint in large masses, or thick films.

**PRODUCT PROPERTIES:**

<b>Color</b>	Part A (Resin): Clear Part B (Hardener): Clear to light yellow Mixed : Clear
<b>Components</b>	2 component - requires mixing
<b>Cure Type</b>	Room Temperature or Heat cure
<b>Benefits</b>	<ul style="list-style-type: none"> <li>• Low viscosity</li> <li>• Solvent-free</li> <li>• Good wetting</li> <li>• Easy mixing</li> <li>• Good resistance to salt solutions, some mild acids and lubricating oil Etc.</li> </ul>
<b>Mix Ratio by weight</b>	2:1 Resin to Hardener
<b>Operating Temperature</b>	-40°C (-40°F) to +130°C (266°F)
<b>Substrates</b>	Most metals, Ceramics, Glass and Etc.
<b>Typical Applications</b>	Fiber optic assembly, multimode and single mode connectors, small potting and sealing applications

**UNCURED PROPERTIES:**

<b>Mixed Viscosity @ 25 °C cps</b>	950 ±150
<b>Specific Gravity gm/cc</b>	Mixed: 1.06
<b>Reactive solids contents, %</b>	100
<b>Pot Life</b>	45 minutes
<b>Shelf life</b>	1 year

**CURE SCHEDULE:**

<b>24 hours</b>	25°C (77°F)
<b>4 hours</b>	65°C (149°F)

**CURED PROPERTIES:**

<b>Hardness, Shore D</b>	82
<b>Refractive Index</b>	1.53
<b>Volume Resistivity ohm. cm</b>	6.0 E+13
<b>Lap Shear Strength alum to alum, PSI</b>	3000 (24 hrs @ 25°C)
<b>Water Absorption , after 24 hours saturation, %</b>	0.01
<b>Dielectric strength, Kv/in</b>	430

**THERMAL PROPERTIES:**

<b>CTE, linear</b>	30.6 µin/in-°F @Temperature 68.0 °F
<b>Glass Transition Temperature (Tg)</b>	53°C (127.4 °F)

**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 F114 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.
5. Allow the product to cure according to the cure schedule.

**AVAILABILITY:**

This epoxy can be supplied in many different packages.

**Atom Adhesives**

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