

High Impact Optically Clear Epoxy Adhesive

Technical Product Bulletin

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 PROPERTIES:

Color	Part A (Resin): Clear Part B (Hardener): Clear to light yellow Mixed: Clear
Components	2 component - requires mixing
Cure Type	Room Temperature or Heat cure
Benefits	<ul style="list-style-type: none"> • Low viscosity • Thermal shock and impact resistant • Low stress connections
Mix Ratio by weight	100:30 Resin to Hardener
Operating Temperature	-40°C (-40°F) to +100°C (212°F)
Substrates	Most metals, Ceramics, Glass and Etc.
Typical Applications	Fiber optic assembly, multimode and single mode connectors, small potting and sealing applications

UNCURED PROPERTIES:

Mixed Viscosity @ 25 °C cps	175 ±30
Specific Gravity gm/cc	Mixed: 1.13
Reactive solids contents, %	100
Pot Life	60 minutes
Shelf life	1 year

CURE SCHEDULE:

24 hours	25°C (77°F)
1-2 hours	65°C (149°F)

CURED PROPERTIES:

Hardness, Shore D	78
Volume Resistivity ohm. cm	9.0 E+8
Lap Shear Strength alum to alum, PSI	4000 (2 hrs @ 65°C)
Dielectric strength, Kv/in	430
Refractive Index	1.51

THERMAL PROPERTIES:

CTE, linear	30.6 µin/in-°F @Temperature 68.0 °F
Glass Transition Temperature (T_g), ultimate, °C	45°C (113 °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 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.
5. Allow the product to cure according to the cure schedule.

AVAILABILITY:

This epoxy can be supplied in many different packages.

Atom Adhesives

Email: info@atomadhesives.com

5769 N Andrews Way, Fort Lauderdale, FL 33309

Phone: (888) 522-6742 - Fax: (877) 522-6742