

Fiber Optic Assembly Epoxy Adhesive

Technical Product Bulletin

PRODUCT DESCRIPTION:

AA-BOND F112 is an impact resistant, fiber-optic adhesive.

AA-BOND F112 is two-part, low viscosity epoxy has the distinct advantage of remaining below 3000 cps for a minimum of 40 minutes.

AA-BOND F112 allows more connectors to be produced from one mix. Low stress, AA-BOND F112 is an excellent choice for multimode connectors and single mode connectors where excessive curing temperatures may cause cracking.

AA-BOND F112 can be cured at room temperature overnight or as fast as 15 minutes at 90°C. The Clear color facilitates easy polishing. This product is a 100% solid system that can be used for small potting and sealing applications where resistance to thermal shock and impact are required.

PRODUCT PROPERTIES:

Color	Part A (Resin): Clear Part B (Hardener): Clear to light yellow Mixed : Clear
Cure Type	Room Temperature or Heat cure <ul style="list-style-type: none"> • Low viscosity
Benefits	<ul style="list-style-type: none"> • 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	1800 ±300
Specific Gravity gm/cc	Mixed: 1.2
Reactive solids contents, %	100
Pot Life	30 minutes
Shelf life	1 year

CURE SCHEDULE:

24 hours	25°C (77°F)
1-2 hours	65°C (149°F)
15 minutes	90°C (194°F)

CURED PROPERTIES:

Hardness, Shore D	85
Volume Resistivity ohm. cm	6.0 E+13
Lap Shear Strength alum to alum, PSI	2500(24 hrs @ 25°C) 3000 (1 hr @ 60°C) 4300(4 hrs @ 90°C)
Dielectric strength, volts/mil	410
Coefficient of Thermal Expansion	90 X10 ⁻⁶ in/in/°C

OPTICAL PROPERTIES:

Refractive Index	1.51
Water Absorption %	0.07

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 F112 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

1 Acorns St, Providence, RI 02903

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