

Fast Cured Fiber Optic Epoxy Adhesive

Technical Product Bulletin

PRODUCT DESCRIPTION:

AA-BOND F125 is an 8 minute gelling epoxy recommended for use in fiber optic connectors, optical and industrial bonding applications.

AA-BOND F125 is Black, two parts system is easily mixed and used at room temperature. Fiber optic connectors can be polished in as little as 15 to 20 minutes for piston free assurance. The high bond strength of AA-BOND F125 to glass, plastics, ceramics, metals and masonry allows it to be used in a wide array of applications including lens bonding, connector backfills, construction, component assembly and maintenance repair.

AA-BOND F125 is low shrinkage epoxy, develops significant properties 1 hour after mixing. However, an extended cure of 4-6 hours at 25°C is required for fully matured bonds.

NOTE: AA-BOND F125 develops a high exothermic reaction. Use immediately after mixing. The exothermic reaction begins within 2 minutes after initiating the mixing step, so have everything ready before mixing.

PRODUCT PROPERTIES:

| | |
|------------------------------|--|
| Color | Part A (Resin): Black Part B (Hardener): Clear to light yellow Mixed: Black |
| Components | 2 components - requires mixing |
| Cure Type | Room Temperature or Heat cure |
| Benefits | <ul style="list-style-type: none"> • Fast Cure • Easy mixing |
| Substrates | Most metals, Ceramics, Glass and Etc. |
| Mix Ratio by weight | 1:1 Resin to Hardener |
| Operating Temperature | -40°C (-40°F) to +100°C (212°F) |
| Typical Applications | Fiber optic assembly, multimode and single mode connectors, small potting and sealing applications |

UNCURED PROPERTIES:

| | |
|------------------------------------|-------------|
| Mixed Viscosity @ 25 °C cps | 9000 ±1000 |
| Specific Gravity gm/cc | Mixed: 1.19 |
| Reactive solids contents, % | 100 |
| Pot Life | 5 minutes |
| Shelf life | 1 year |

CURE SCHEDULE:

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

CURED PROPERTIES:

| | |
|---|----------------------|
| Hardness, Shore D | 81 |
| Volume Resistivity ohm. cm | 5.0 E+11 |
| Lap Shear Strength alum to alum, PSI | 2900 (24 hrs @ 25°C) |
| Dielectric strength, Kv/in | 410 |

THERMAL PROPERTIES:

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|--|--|
| CTE, linear | 33.3 µin/in-°F @Temperature 68.0 °F |
| Glass Transition Temperature (Tg) | 40°C (104 °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 F125 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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