

Optically Transparent Low Viscosity Epoxy Adhesive

Technical Product Bulletin

PRODUCT DESCRIPTION:

AA-BOND F110 is an optically clear adhesive with a very low viscosity.

AA-BOND F110 is room temperature system an excellent choice for thin bond-line assembly and repair applications of prisms, lenses and other optic components. And its high strength makes this epoxy ideal for structural applications.

AA-BOND F110 exhibits excellent wetting and wicking capabilities which allows it to adhere strongly to glass, ceramics, metals and most rigid plastics.

PRODUCT PROPERTIES:

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|------------------------------|--|
| Color | Part A (Resin): Clear Part B (Hardener): Clear to light yellow |
| Cure Type | Room Temperature or Heat cure <ul style="list-style-type: none"> • High strength • Good insulation properties |
| Benefits | <ul style="list-style-type: none"> • Good resistance to salt solutions, mild acids and Alkalis and many other chemicals |
| Mix Ratio by weight | 100:11 Resin to Hardener |
| Substrates | Excellent choice for thin bond-line assembly and repair applications of prisms, lenses and other optic components |
| Operating Temperature | -40°C (-40°F) to +130°C (266°F) |
| Substrates | Most metals, Ceramics, Glass and Etc. |
| Typical Applications | Electrical casting and encapsulating, circuitry, electronic component casting and etc. |

UNCURED PROPERTIES:

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|------------------------------------|-------------|
| Mixed Viscosity @ 25 °C cps | 310 ±50 |
| Specific Gravity gm/cc | Mixed: 1.16 |
| Reactive solids contents, % | 100 |
| Pot Life | 30 minutes |

CURE SCHEDULE:

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

CURED PROPERTIES:

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|---|--|
| Hardness, Shore D | 84 |
| Volume Resistivity ohm. cm | 6.0 E+13 |
| Lap Shear Strength alum to alum, PSI | 2150 (24 hrs @ 25°C) 2600 (1 hr @ 65°C) 3000(4 hrs @ 65°C) |
| Dielectric strength, volts/mil | 410 |
| Coefficient of Thermal Expansion | 90 X10 ⁻⁶ in/in/°C |

OPTICAL PROPERTIES:

| | |
|------------------------------|------|
| Refractive Index | 1.54 |
| Transmission, Visible | 97% |

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 F110 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. 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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