

AA-BOND 2115

High Impact Optically Clear Epoxy Adhesive Technical Product Bulletin

PRODUCT DESCRIPTION:

AA-Bond 2115 is low viscosity epoxy formulation used in the fabrication of lasers. AA-Bond 2115 is an optical clear epoxy where alignment accuracy is essential. AA-Bond 2115 withstands 30 seconds of 60 watt direct laser energy. This adhesive has been used in cycling applications.

AA-Bond 2115 bond has good resistance to water and weathering, most petroleum solvents, mild acids and alkalis and other chemicals.

GENERAL PROPERTIES:

Technology Epoxy Color Clear Room temperature cure or Heat cure Cure **Operating temperature** -50 to 105 °C Low viscosity Low shrinkage Product Benefits Good mechanical shock resistance Excellent temperature cycling performance Mix Ratio, by weight-100 : 30 **Resin : Hardener** Application Manufacturing and Assembly Laser fabrication and Other optic **Typical Optic Application** applications Glass, Rigid plastics, Ceramic and **Substrates** Metals

TYPICAL PROPERTIES OF UNCURED MATERIAL

Viscosity @ 25 °C, cP: After Mixing	260 ± 10
Specific Gravity, mixed	1.19
Pot Life, hours	1.5

TYPICAL CURING PERFORMANCE

Cure Schedule		
25°C	24 hours	
60°C	1 to 2 hours	

PHYSICAL PROPERTIES:

Coefficient of Thermal Expansion, cm/cm/ºC	5.50×10-05
Glass Transition Temperature (Tg), °C	55
Shore D	77
Izod Impact Strength, ft-lb/in. of notch	0.22

ELECTRICAL PROPERTIES:

Dielectric Strength, volts/mil	430	
Dielectric Constant @ 25ºC : 1kHz	4.8	
Dissipation Factor @ 25ºC : 1kHz	0.01	

TYPICAL PERFORMANCE OF CURED MATERIAL

Lap Shear Strength, psi:

Substrate		
Aluminum to Aluminum	3700	

GENERAL INFORMATION

For safe handling information on this product, consult the Safety Data Sheet, (SDS).

DIRECTIONS FOR USE

1. Carefully clean and dry all surfaces to be bonded

2. Burst the pouch and thoroughly mix the AA-BOND 2115 epoxy adhesive system components in the handy plastic pouch until color is uniform throughout.

3. Apply this 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.

4. Some ingredients in this formulation provided in the plastic pouch, and bulk packaging may crystallize when subjected to low temperature storage. A gentle warming cycle of 50°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 redissolved prior to use for best results.

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