



Anyglue E-3220B

Technical Data Sheet

PRODUCT DESCRIPTION

Anyglue E-3220B is an epoxy-based product for molding electronic materials developed by ATA technology.

Characteristics

- **Adhesive strength**
 - Provides excellent adhesion to PCB and component materials.
- **Hardness**
 - Over Shore D 80.
- **Minimize appearance change due to low heat during curing**
 - The adherend is safe due to low heat generation during curing.
 - Compared to general epoxy molding products, yellowing is minimized.
- **Realization of stable fast curing**
 - Regardless of the capacity, it is possible to secure the shape after 30 to 40 minutes at room temperature.
- **Heat resistance**
 - Stable adhesion is realized within the range of 150°C.
- **Environmental condition**
 - Free of 6 heavy metals (Cd/Pb/Hg/Cr 6+/PBBs/PBDEs).
 - Halogen (Cl, Br, F, I) less than 900ppm, suitable for electronic materials.
 - Solvent-free
- **Provides user-customized workability**
 - Designed with optimized viscosity for efficient molding.
 - Air bubbles are minimized at room temperature.

Application

- **Electrical and electronic molding**
- **Epoxy molding material**

TYPICAL PROPERTIES OF UNCURED MATERIAL

• Anyglue E-3220B(PART A)

	Unit	Detail
Chemical Type	-	Epoxy
Appearance	-	translucent
Viscosity ¹⁾	cps	2,000±500 cps
Specific gravity ²⁾	-	1.16~1.20
RoHS ³⁾	ppm	N.D
Halogen ⁴⁾	ppm	<1000

• Anyglue E-3220B(PART B)

	Unit	Detail
Chemical Type	-	amine mixture
Appearance	-	Black
Viscosity ¹⁾	cps	80±20 cps
Specific gravity ²⁾	-	0.98~1.00
RoHS ³⁾	ppm	N.D
Halogen ⁴⁾	ppm	N.D

1) Viscometer : Brookfield HB type (DV2T) / @25°C

2) ASTM D1475

3) Accredited certification authority

4) Accredited certification authority

TYPICAL CURING PERFORMANCE

	Unit	Detail
Curing method ¹⁾	-	Room temperature
Mixing ratio	wt.%	4:1
Color	-	BLACK
Working time ²⁾	min	<20
Gel Time ³⁾	min	<40
Temperature ⁴⁾	°C	<60
Cure time	hours	<24

1) Heat curing possible

2) In-house test standard(@23°C/50%, 100g)

3) Gel time may vary depending on usage and working environment

4) Heating temperature may increase depending on usage and environment

TYPICAL PROPERTIES OF CURED MATERIAL

		Unit	Detail
Tensile Strength ¹⁾	23°C	N/mm ²	>10
	150°C		2
	Heat impact		>14
Appearance		-	Black
Hardness ²⁾		Shore D	>80

1) ASTM D1002-10 (Tension speed : 50mm/min, SUS 304)

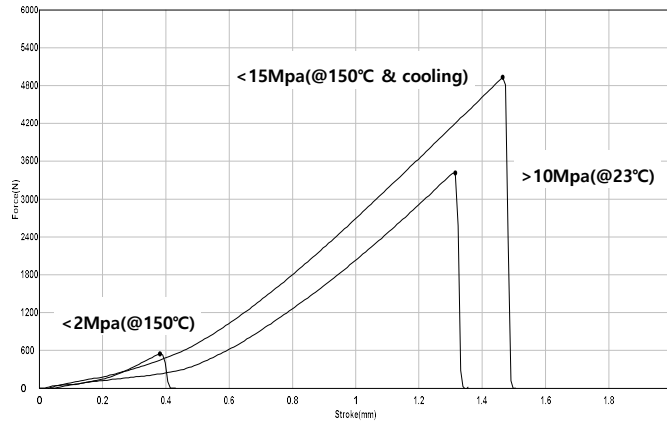
2) ASTM D2240 (Shore D type)

CURING SPEED BY VOLUME

	Curing time					
	10min	20min	30min	40min	50min	60min
10g	33.2°C	32.8°C	28.6°C	27.6°C	28.4°C	28.3°C
				Gel		
30g	37.2°C	38.1°C	35.2°C	31.1°C	31.3°C	30.9°C
				Gel		
50g	38.2°C	41.3°C	41.9°C	39.2°C	37.4°C	35.4°C
				Gel		
100g	42.6°C	45.9°C	47.9°C	49.8°C	52.8°C	52.2°C
				Gel		

• Curing condition : 23°C / 50% RH

CURE TIME



- Test method : single lap shear test (ASTM D1002-10, tension speed : 50mm/min)
- Substrate : SUS 304 (13mm x 25mm x 100 μ m)
- Curing time : After 24hours (23°C / 50% RH)

DIRECTIONS FOR USE

• Preparing the molding substrate

- Remove contaminants such as dust, oil, and moisture from the surface of the adherend.

• Adhesive preparation and injection

- Put all the hardener in the main container (1L), proceed with mixing within 5 minutes.
- When using a small amount, mix PART A and PART B in a 4:1 ratio.
- Prepare for molding in a uniform state through sufficient mixing.
- After sufficiently mixing, proceed with injecting an appropriate amount.

• Curing progress

- After injecting an appropriate amount, move and maintain in a stable curing environment until it becomes a gel at room temperature.
- When heat is applied, the curing time is shortened due to the fast-curing speed.
- Air bubbles generated during mixing are reduced over time, but the air bubbles are efficiently removed by vacuum.
- Be careful not to apply physical shock.

NOTE

- Keep out of reach of children and never ingest, inhale vapors or come into contact with skin.
- During long-term or low-temperature storage, if freezing occurs inside PART A, apply heat to melt.
- Provide sufficient ventilation as much as possible during work and drying.
- Restrict use other than adhesive purposes.




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- If the viscosity of PART A is not suitable for the work due to the working environment, apply heat to lower the viscosity.
- If the temperature of the adherend is high, the product can be used, but the curing speed may be faster.
- The curing speed may vary depending on the amount of product used, applied area, applied thickness, and working environment.
- When mixing, if the amount of PART B is small or large, the curing speed and physical properties may differ from the listed results.
- If there is a large amount of molding and molding, the exothermic temperature may increase, and yellowing may occur. If not suitable, please contact us and recommend other products.
- The hardener may generate some steam at the beginning, but it does not affect the physical properties.
- Do not use this product by mixing it with a solvent or diluent.
- Gel time at a level that maintains its shape is secured within 40 minutes, but complete curing requires a certain curing time. It is necessary, and please cure it for at least 12 hours.
- Make sure to store the product in an airtight state and store the remaining amount in the same way after use.
- After work, wash exposed skin thoroughly.

STORAGE

- Period of use: 12 months from the date of manufacture.
- It is recommended to store at a room temperature of 10~40°C out of reach of children. Avoid direct sunlight and store in a cool place.
- * If the storage temperature and humidity management is limited, it affects the lifespan of the product, and the quality degradation may occur..

PACKAGING

- Anyglue E-3220B(PART A) : Steel CAN(1L)
- Anyglue E-3220B(PART B) : PE (250ml)

* Packaging unit and method can be changed according to user's request.

ISSUED DATE

- Aug. 5th. 2021

*** Please refer to the Material Safety Data Sheet (MSDS) for other detailed precautions and safety and hygiene precautions.**