

## ET5121

### Epoxy for Potting and Bonding

ET5121 is a high viscosity two-component epoxy resin. This resin has good workability and can be completely cured at low temperature. The cured product has high toughness, high insulation and impact resistance. This product is suitable for applications such as bonding, caulking, potting, encapsulation, embedding, etc. of electronic components.

#### FEATURES

1. The cured product will not absorb moisture and caking.
2. This product offers excellent chemical resistance and solvent resistance.
3. The hardening surface will not exhibit a surface oiliness and poor gloss.
4. This product has good toughness after curing and good shock resistance.
5. This product has excellent bonding properties for general glass, ceramics and metals.
6. This product complies to the 2011/65/EU RoHS regulations.

#### TYPICAL UNCURE PROPERTIES

Properties	ET5121A	ET5121B
Appearance	Liquid	Liquid
Color	White	Gray
Viscosity 25°C cps	82,000 S14 10rpm	38,000 S14 20rpm
Specific Gravity	1.33	1.26

#### TYPICAL CURING PROPERTIES

Properties	Range
Mix Ratio (A:B) by Weight	1 : 1
Mix Ratio (A:B) by Volume	1 : 1
Pot Life 25°C, min	45
Surface Dry Time 25°C, hr	8
Cure Time 25°C, days	5~7
Cure Time 80°C, hr	1

#### DIRECTION OF USE

1. Mix thoroughly by volume 1 : 1. Mix approximately 15 seconds after uniform color is obtained.
2. This resin should be applied to a clean surface which is free of dirt, grease or mold release. In many cases, a simple solvent wipe is sufficient.
3. For maximum bonding strength apply adhesive evenly to both surfaces to be jointed.
4. The handling information of this product supplied in dual syringe cartridge can be obtained by requesting a copy of "Introduction for Adhesive Cartridge Dispenser", F-06122201.
5. Cure time on the really part will depend upon factors such as part geometry, materials to be bonded, bondline thickness and efficiency of the oven. Cure schedule should be confirmed with actual production parts and equipment.

#### TYPICAL CURED PROPERTIES \*

Properties	Range
Glass Transition Temp., (MDSC), °C	16
Durometer Hardness, Shore D	55
Shear Strength Al vs. Al, kgf/cm <sup>2</sup>	60
Degradation Temp, (TGA 10°C/min), °C	330
Thermal Conductivity, W/mK	0.3
Volume Resistivity, ohm-cm	5.0*10 <sup>12</sup>
Dielectric Constant, 1KHz	3.2
Dielectric Strength, KV/mm	19
Temperature Range, °C	-20~150
Recommend Short-term temperature resistance, °C	200

\*Specimen Cure Condition: 80°C / 1hr

#### STORAGE AND SHELF LIFE

The container should be stored in cool and dark place. The resin and hardener will become yellow under the sunlight. This product is amine content, replace the lid immediately after use. Keep without any possibility of wet when not using. This product has a one year minimum shelf life when stored below 14~34 °C in original, unopened containers.

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#### CAUTION

Some findings indicate a lack of potential for carcinogenicity with the compositions of this product by long term recurrent application to the skin. However, contact with skin is likely to produce mild transient reddening. It is important to remove adhesive from skin with soap and water thoroughly. DO NOT use solvents for cleaning hands. This product is of moderate acute toxicity by swallowing. If swallowed, call a physician. Avoid contact with eyes. In case of contact, flush with water for at least 15 minutes and get medical attention immediately. For more information, refer to the Material Safety Data Sheet.

The data contained in this bulletin is provided only as a guide for evaluation/consideration. These material characteristics are typical properties that are based on a limited number of samples tested in the laboratory. We cannot assume responsibility for results obtained by others over whose methods we have no control. It is the user's responsibility to determine suitability for the user's purpose of any product or method. We recommend that each prospective user test his proposed application before repetitive use, using this data as a guide.