

ET5127

Thermally Conductive & Structural Bonding Adhesive

ET5127 is a two-part thermal conductive epoxy adhesive. It is characterized by its low viscosity and excellent fluidity, allowing for easy handling and a suitable operation time. Once cured, it exhibits high thermal conductivity, minimal contraction, a smooth surface, flexibility, strong bonding capabilities, and effective sealing performance. Additionally, it boasts exceptional resistance to chemicals and demonstrates good mechanical and electrical properties.

APPLICATION

The sealing and bonding of electric components, temperature sensors, electronic transformers, charging piles, filters, anion generators, capacitors, power modules, LED modules, circuit components, aquatic pumps, electric and electronic devices compliance with regulations auto parts mechanic hardware photoelectric decorations are widely used to prevent moisture infiltration.

TYPICAL UNCURED PROPERTIES

Properties	ET5127A	ET5127B
Appearance	Gray	Yellow
Specific Gravity (25°C)	2.80±0.05	1.05±0.05
Viscosity (25°C, cps)	40,000 ~ 60,000	30 ~ 70
Shelf life (25°C)	6 months	
Package Size	Customizable	

TYPICAL CURING PROPERTIES*

Properties	Range
Mix ratio (A:B) by weight	10:1
Pot Life 25°C, hours	1.5 ~ 2
Gel time, 25°C, hours	4~6
Surface cure, 80°C, hours	1
Though cure time, 25°C, hours	24

A:B = 100g:10g

DIRECTION OF USE

- Prior to being integrated into a large-scale application, it is essential to conduct sampling. The speed of reaction is dependent on the quantity of the mixture; introducing a large amount can significantly accelerate the process but may reduce handling time. It is recommended to control the application quantity at once for optimal handling.

- Adherence to precise ratios during the mixing stage and thorough stirring are crucial for achieving uniform products, including all sides of the container. Avoiding contamination from insulation varnish or other chemical solvents is imperative as reactions between these substances and glue can lead to permanent suspension of the glue's reaction. The increase in viscosity during the process is normal as the reaction progresses; ensure that handling processes are completed within appropriate time intervals.
- If opting for heat curing, it is advisable to allow a brief period after potting before transferring to the oven. In case of bubbles forming on the surface, prioritize defoaming first.
- Component A may develop sediment within approximately 15 days (shorter duration under low temperatures); it is recommended to dissolve this sediment in a warmer environment and thoroughly stir before combining with component B. Failure to do so may result in extended curing times or incomplete curing.
- The aforementioned recommendations are based on our knowledge and past experiences; adjustments should be made according to specific application requirements. Huachuang cannot be held responsible if these suggestions are not suitable for particular applications.

TYPICAL CURED PROPERTIES*

Properties	Range
Shore Hardness, 25°C (ISO 868), Shore D	80~90
Breakdown voltage, kV/mm	16~18
Temperature resistance, °C	130~150
Insulation resistance, Ω-cm	2.5E14
Thermal conductivity, W/m°C	2.6~2.8
Shear Strength, MPa	5~7

* Specimen Cure Condition: 60°C / 0.5hr

PACKAGING

Generally, it is packaged in 50ml double gel cartridges/ 5kg Drum, but other packaging forms can also be used according to customer needs.

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STORAGE AND SELF LIFE

- Store the seal in a cool, dry place.
- If Component A crystallizes at low temperatures during its shelf life, it can still be used without affecting its final performance. Before applying, expose Component A to a temperature of 60-80 degrees and stir well until the ingredients dissolve again.
- Component B is an amidine that easily absorbs moisture and must be stored in a tightly sealed container.

CAUTION

Some findings indicate a lack of potential for carcinogenicity with the compositions of this product by long term recurring 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 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.