

ET5111

Two-part Epoxy for Bonding application

ET5110 is two component epoxy resin for electronic devices. This resin has low viscosity, good transparency, perfect surface gloss and high adhesion strength. This product can fast cure at low temperature and is suited for metals, glasses, ceramics, and plastics bonding .

FEATURE

- This product is easy to use and mix.
- The hardener of this product will not absorb moisture and cake.
- This resin offers excellent retention of electrical insulation properties.
- This product exhibits high adhesion strength. The hardening surface will not exhibit a surface oiliness. This product offers excellent chemical resistance and solvent resistance.
- This resin has excellent dimensional stability over a wide temperature range.
- This product complies to chlorine < 900ppm, bromine < 900ppm, chlorine + bromine < 1500ppm.
- Cure time on the really part will depend on 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 UNCURED PROPERTIES

Properties	ET5111A	ET5111B
Appearance	Liquid	Liquid
Color	Colorless	Light yellow
Viscosity *25°C, S14 100rpm, cps	4000 ~ 6000	1000 ~ 2000

TYPICAL CURING PROPERTIES

Properties	ET5111
Mix Rate (A : B) By Weight	2:1
Pot Life, 25 °C , min	30
Tack Free Time, 25 °C, min	160
Through Cure Time, 25 °C, day	5
Through Cure Time, 80 °C, hr	1

DIRECTION OF USE

- It 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.
- Weight the correct proportions to within 2% accuracy and mix thoroughly together, scraping both the bottom and the sides of mixing container, until a homogeneous mixture is obtained.

TYPICAL CURED PROPERTIES

Properties	ET5111
Glass Transition Temp., (MDSC), °C	64
Durometer Hardness, Shore D	82
Specific Gravity* ¹	1.07
Water Absorption Ratio (25°C/24hr), %	0.50
Shear Strength* ¹ , Al vs. Al, Kg/cm ²	264
Shear Strength* ² , PC vs. PC, Kg/cm ²	65
Shear Strength* ³ , ABS vs. ABS, Kg/cm ²	72
Shear Strength* ⁴ , PVC vs. PVC, Kg/cm ²	42
Degradation Temp (TGA10 °C /min), °C	357
Weight Loss Ratio@100°C%	0
Weight Loss Ratio@150°C%	0.04
Weight Loss Ratio@200°C%	0.24
Weight Loss Ratio@150°C%	0.56
Weight Loss Ratio@300°C%	1.40
Weight Loss Ratio@350°C%	3.92

Specimen Cure Condition: 80°C/hr

STORAGE AND SHELF LIFE

The container should be stored in cool and dark place. The resin and hardener will become yellow under the sunlight. Part B is amine content, replace the lid immediately after use. Keep without any possibility of wet when not using. Shelf life of this product is one year when stored below 14~34oC 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 resin 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 specific information on this product, consult 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.