



Epoxy for Motors Potting

Product Description

JE136-5 is two component epoxy for the application of electronic devices potting. This product has low shrinkage and high thermal conductivity after cured, and it is suited for electronic devices and motors potting. This resin has good thermal shock resistance, it is suit for encapsulation of various components and modules. This product exhibits high adhesion strength, greasy resistance, chemical and solvent resistance. The crack and fatigue resistance of this resin are outstanding in many vibrational applications. The durability of this product is very high levels and this resin can pass many environmental test experiments.

Features

1. This product is solvent-free, two component epoxy resin.
2. This product has good heat tolerance.
3. This product has excellent thermal shock resistance.
4. It won't exhibits excess stress when heating.
5. This product has good thermal conductivity.
6. The cured product of this product is effective against moisture and water.
7. This resin has excellent dimensional stability over a wide temperature range.
8. This resin complies to the 2011/ 65/EU RoHS regulations.
9. This product obeys UL94 HB regulations.

Typical Uncured Properties

	JE136-5A	JE136-5B
Appearance	Liquid	Liquid
Color	Black	Gray
Viscosity* 25°C, cps	125,000~250,000 S14 5 rpm	30,000~60,000 S14 50rpm
Mixing Viscosity* 25°C, cps	25,000~50,000 S14 50 rpm	
Mixing Viscosity* 60°C, cps	4,000~8,000 S14 100 rpm	
Specific Gravity	2.23	2.23

* Test method: Refer to ASTM D-1084-88 , Brookfield RVD-I + Viscosimeter.

Typical Curing Properties

Mix Ratio (A : B) by Weight	1 : 1
Pot Life, 25°C, hr	4
Cured Time, 120°C, hr	3
Cured Time, 130°C, hr	1

* A : B=10g : 10g

Direction of Use

1. This product 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.
2. 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.

3. If part B is precipitation, stir well before use.
4. 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.
5. For large scale application, this resin is suggested to be precured at lower temperature, then full curing at high temperature to avoid extremely heat release.
6. After Part A and Part B mixing, the pot life is about 4 hours at the room temperature. Please stir the mixing product thoroughly to keep the product properties.
7. When not using the mixing product immediately, please replace the lid to prevent the product from the air and moisture.

Typical Cured Properties*1

Glass Transition Temp., (DSC), °C	130
CTE*2 (<Tg), μm/m/°C	38
CTE*2 (>Tg), μm/m/°C	100
Durometer Hardness, Shore D*3	91
Specific Gravity	2.26
Water Absorption Ratio (25°C /24hr), %	0.02
Water Absorption Ratio (80°C /24hr), %	0.13
Water Absorption Ratio (97°C /1.5hr), %	0.08
Degradation Temp. (TGA 10°C /min), °C	342
Thermal Conductivity, W/mK	1.3
Volume Resistivity, ohm-cm	2.5*10 ¹⁵
Dielectric Strength, Kv/mm	25
Dielectric Constant, 60Hz	3.4
Bending Strength, MPa	120
Temperature Range, °C	-40~200

*1 Specimen Cure Condition : 130 °C / 1hr

*2 CTE: Coefficient of Thermal Expansion

*3 Test method: Refer to ASTM D 2240-03 , Durometer D Type.

Storage and Shelf Life

The container should be stored in cool and dark place. The resin and hardener will become yellow under the sunlight. Replace the lid immediately after use. Keep without any possibility of wet when not using. Shelf life of this product is six months when stored below 14~34°C in original, unopened containers.

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.