



One Component Epoxy Adhesive

Product Description

JA126-17 is epoxy resin for low temperature curing. This resin exhibits good handling, chemical resistance and perfect surface gloss. This product is well suitable for ceramics, metals, glass and plastics bonding. The durability of this resin is very high levels and it is able to pass many environmental test experiments. For its characteristic and reliability, this product is used widely in various areas, as a high performance adhesive.

Features

1. This resin is solvent-free, non-volatile, system.
2. This product has good processing properties and stability. It is able to fast cure more than 70°C.
3. The hardening surface will not exhibit a surface oiliness and poor gloss.
4. Cured product forms an outstanding bonding with various substrates.
5. Cured resin is effective against moisture and water.
6. This product complies with the 2011/65/EU RoHS regulations.
7. This product complies to chlorine < 900ppm, bromine < 900ppm, chlorine + bromine < 1500ppm.

Typical Uncured Properties

Appearance	JA126-17 Liquid
Color	Light yellow
Viscosity 25°C, S14 20rpm, cps	30,000~50,000
Thixotropic Index	3.5~4.5
Specific Gravity	1.17

Typical Curing Properties

Pot Life, 25°C, days	2
Through Cure Time, 70°C, min	60
Through Cure Time, 100°C, min	40
Through Cure Time, 110°C, min	30
Through Cure Time, 120°C, min	20

Direction of Use

1. 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.
2. Apply adhesive to one or both substrates to be bonded. The parts must be held in contact until the adhesive is cured.
3. The package of this product which is refrigerated in -40°C ~ -5°C can be brought to ambient conditions by allowing to stand at room temperature for 1 to 2 hours. Do not loosen container cover before temperature equilibration.
4. Use the adhesive which is taken out of refrigerators only after the temperature of it gets up enough to the room temperature.
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 Properties¹

Glass Transition Temp.,(MDSC), °C	76
CTE* ² (<T _g), μm/m/ °C	50
CTE* ² (>T _g), μm/m/ °C	180
Specific Heat 0°C, J/g°C	7.36
Specific Heat 25°C, J/g°C	7.95
Specific Heat 50°C, J/g°C	8.44
Specific Heat 75°C, J/g°C	8.80
Durometer Hardness, Shore D	87
Specific Gravity	1.20
Water Absorption Ratio (25°C /24hr), %	0.20
Water Absorption Ratio (80°C /24hr), %	2.87
Water Absorption Ratio (97°C /1.5hr), %	1.92
Shear Strength Al vs. Al, kgf/cm ²	188
Shear Strength* ³ Al vs. Al, kgf/cm ²	239
Shear Strength* ⁴ Al vs. Al, kgf/cm ²	280
Shear Strength* ⁵ Al vs. Al, kgf/cm ²	280
Degradation Temp. (TGA 10°C /min), °C	315
Weight Loss Ratio@100°C, %	0.069
Weight Loss Ratio@150°C, %	<0.1
Weight Loss Ratio@200°C, %	<0.1
Weight Loss Ratio@250°C, %	0.65
Weight Loss Ratio@300°C, %	3.31
Weight Loss Ratio@350°C, %	8.35
Thermal Conductivity, W/mK	0.3
Thermal Resistance, m ² K/W	0.01
Volume Resistivity, ohm-cm	4.5*10 ¹⁵
Surface Resistivity, ohm	4.5*10 ¹⁴
Dielectric Constant 1KHZ	3.2

*¹ Specimen Cure Condition : 70°C / 60min

*² CTE: Coefficient of Thermal Expansion

*³ Specimen Cure Condition : 100°C / 40min

*⁴ Specimen Cure Condition : 110°C / 30min

*⁵ Specimen Cure Condition : 120°C / 20min

Storage and Shelf Life

This resin should be kept without any possibility of moisture and heat exposure. It should be storage at -40°C ~ -5°C before opening the containers. This product has an eight month minimum shelf life. Before using, it should place this product at 14~34°C for 1 to 2 hours. The properties will be changed when replace this product at room temperature for long time.

Caution

Some findings indicate a lack of potential for carcinogenicity with the compositions of this product by long term recurrent application to the skin. DO NOT use solvents for cleaning hands. It is important to remove this product from skin with soap and water thoroughly. This product is of slight 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.