



## One Component Epoxy Adhesive

### Product Description

JC750-11W is a one-component epoxy adhesive for electronic devices bonding. This product is suited for longer pot life industry applications. Cured product exhibits outstanding adhesion strength, extremely high hardness, excellent greasy resistance, chemical resistance and solvent resistance. This product can fast cure at low temperature that is suited for different kinds of materials bonding. This product offers very high level durability and can pass many environmental test experiments. This product is greatly suited for relays assembling and heat sensitive components bonding.

### Features

1. This product is solvent-free and non-volatile system.
2. The hardening surface of this product will not exhibit a surface oiliness and poor gloss.
3. This product offers excellent retention of electrical insulation properties under high humidity conditions.
4. Cured product offers excellent chemical resistance and solvent resistance.
5. This product has stable storage property and offers very long shelf life.
6. Cured product exhibits excellent protection and vibration resistance for electronic devices.
7. This product complies to the 2011/65/EU RoHS regulations.

### Typical Uncured Properties

Appearance	JC750-11W
Color	Liquid
Viscosity 25°C, S14 50rpm, cps	White
Thixotropic Index	16,000~25,000
	≥ 1.5

### Typical Curing Properties

Pot Life 25°C, day	3
Gel Time 80°C, min	5
Cure Time 80°C, min	30

### Direction of Use

1. The package of this resin which is refrigerated in -40°C ~ -5°C can be brought to ambient conditions by allowing to stand at 2~13°C for 1hour and then put the resin at 14~34°C for 1 hours. Do not loosen container cover before temperature equilibration.
2. Bonding surfaces should be clean, dry and properly prepared.
3. Apply adhesive to one or both substrates to be bonded. The parts must be held in contact until the adhesive is cured.
4. Cure time on the real 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 Cured Properties\*1

Glass Transition Temp.,(MDSC), °C	30
CTE*2 (<Tg), μm/m/°C	41
CTE*2 (>Tg), μm/m/°C	214
Specific Heat 0°C, J/g°C	4.99
Specific Heat 25°C, J/g°C	5.27
Specific Heat 50°C, J/g°C	5.46
Specific Heat 75°C, J/g°C	5.63
Specific Heat 100°C, J/g°C	5.71
Durometer Hardness, Shore D	80
Specific Gravity	1.66
Water Absorption Ratio (25°C /24hr), %	0.67
Water Absorption Ratio (80°C /24hr), %	1.99
Water Absorption Ratio (97°C /1.5hr), %	1.75
Shear Strength Al vs Al, kgf/cm <sup>2</sup>	125
Shear Strength	118
Stainless Steel vs Stainless Steel, kgf/cm <sup>2</sup>	
Degradation Temp. (TGA 10°C/min), °C	352
Weight Loss Ratio @100°C, %	0
Weight Loss Ratio @150°C, %	0
Weight Loss Ratio @200°C, %	0
Weight Loss Ratio @250°C, %	0.10
Weight Loss Ratio @300°C, %	0.34
Weight Loss Ratio @350°C, %	4.51
Thermal Conductivity, W/mK	0.3
Thermal Resistance, m <sup>2</sup> K/W	0.01
Volume Resistivity, ohm-cm	5*10 <sup>15</sup>
Surface Resistivity, ohm	5*10 <sup>14</sup>
Dielectric Constant, 100Hz	4.1
Dielectric Strength, KV/mm	18
Recommended Temperature Range, °C	-40 ~ 120
Permissible High Temperature After Cured, °C	100

\*1 Specimen Cure Condition : 80°C / 30min

\*2 CTE: Coefficient of Thermal Expansion

### Storage and Shelf Life

This product should be kept without any possibility of moisture and heat exposure. Shelf life of this product is 6 months when stored at -40°C ~ -5°C in original and unopened containers. Before using, this product should be placed at 14~34°C for 1 to 2 hours. It is recommended to use this product up in 3 days. The properties will be changed when place this product at 14~34°C 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. 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 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.