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Technical Data Sheet

JC 801

High Performance Epoxy Adhesive

Product Description

JC801 is a two-component epoxy with medium viscosity and toughness. Cured product forms high toughness, and offers outstanding adhesion strength in peel and shear tests at the same time. The crack resistance and fatigue resistance of this product are outstanding in many vibrational applications. This product can be applied on different substrates, including plastics, woods, metals, glass, carbon fibers, ceramics and so on. The durability of this product is very high levels that can pass many environmental test experiments. For the characteristic and reliability of this product, it is applied widely in various areas, as a high performance adhesive.

Features

1. The retained strength of this product after environmental test experiments is still high.
2. This product offers outstanding shear strength and peel strength.
3. Cured product can effectively against moisture and water.
4. Cured product exhibits excellent chemical resistance and solvent resistance.
5. This product exhibits excellent thixotropy. It can be controlled flow and have sag resistance.
6. This product complies to the 2011/65/EU RoHS regulations.

Typical Uncured Properties

	JC801A	JC801B
Appearance	Liquid	Liquid
Color	Milky	Yellow
Viscosity 25°C, cps	50,000~76,000 S14 10rpm	5,000~8,000 S14 100rpm
Viscosity 25°C, cps	150,000~250,000 S14 1rpm	10,000~22,000 S14 10rpm
Thixotropic Index	≧1.8	≧1.8
Specific Gravity	1.16	1.04

Typical Curing Properties*

Mix Ratio (A：B) by Weight	2：1
Pot Life, 25°C,min	10~20
Through Cure Time, 25°C, day	5~7
Through Cure Time, 80°C, min	60

*A：B = 10g：5g

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. Mix thoroughly by weight 2：1. Mix approximately 15 seconds after uniform color is obtained.
3. For optimum properties mixed, this product should be used before its pot life.
4. For maximum bonding strength apply adhesive evenly to both surfaces to be jointed.
5. Contact pressure is recommended during this resin cure.

Typical Cured Properties*1

Glass Transition Temp.,(MDSC), °C	53
Glass Transition Temp., (TMA), °C	79
CTE *2 (<Tg), μm/m/ °C	63
CTE *2 (>Tg), μm/m/ °C	229
Specific Heat 0°C, J/g°C	6.61
Specific Heat 25°C, J/g°C	7.07
Specific Heat 50°C, J/g°C	7.48
Specific Heat 75°C, J/g°C	7.87
Specific Heat 100°C, J/g°C	8.00
Durometer Hardness, Shore D	82
Specific Gravity	1.16
Water Absorption Ratio (25°C/ 24hr), %	0.30
Water Absorption Ratio (80°C/ 24hr), %	2.69
Water Absorption Ratio (97°C/ 1.5hr), %	1.73
Shear Strength Al vs PP, kgf	270
Shear Strength Al vs Nylon 6, kgf	1,200
Degradation Temp., (TGA 10°C/ min) °C	334
Weight Loss Ratio @100°C, %	< 0.5
Weight Loss Ratio @150°C, %	0.79
Weight Loss Ratio @200°C, %	1.10
Weight Loss Ratio @250°C, %	1.29
Weight Loss Ratio @300°C, %	2.49
Weight Loss Ratio @350°C, %	7.01
Thermal Conductivity, W/mK	0.3
Thermal Resistance, m^2K/W	0.01
Volume Resistivity, ohm-cm	$5*10^{15}$
Surface Resistivity, ohm	$5*10^{14}$
Dielectric Constant, 100Hz	4.1

*1 Specimen Cure Condition:80°C / 1hr
*2 CTE: Coefficient of Thermal Expansion

Storage and Shelf Life

This product should be stored in cool and dark place. The hardener is easy for moisture absorption and caking when reacting with the moisture in the air. This product is amine-content, replace the lid immediately after use. Keep without any possibility of moisture when not use. Shelf life of this product is 1 year when stored at 14~34°C in the original and 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 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 Material Safety Data Sheet.