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Technical Data Sheet

JD 857

Dual system adhesive For optical components

Product Description

JD857 is a UV adhesive for optical component caulking The use of this resin is to use UV light to cure and pre-cur the acrylic resin, and then heat and cure the epoxy resin to achieve good adhesion properties, thermal shock resistance and low shrinkage. For its performance and reliability, this resin is uesd in many applications, such as C-MOS.

Features

1. This product can be used in the caulking of electronic components, and can be applied to dispensing equipment
2. This product forms an outstanding bonding with glass, metals and ITO.
3. This resin is lower moisture permeability than the other competitors.
4. Cured resin is effective against moisture and water.
5. The resin can still maintain high strength after environmental accelerated test.
6. This resin is a solvent-free and low-pollution epoxy resin.
7. This product complies to the 2011/ 65/EU RoHS regulations.

Typical Uncured Properties

	JD857
Appearance	Liquid
Color	Black
Viscosity 25°C, S14 10rpm, cps	126,000
Thixotropic Index	>4

Typical Curing Properties

Pot Life*, 25°C, day	1
Cured Condition (1) UV Curing	
Recommended Wavelength, nm	340~395
Minimum Light Intensity, mW/cm^2	> 50
Minimum Light Energy, mJ/cm^2	3,000~6,000
Cured Condition (2) Heat Curing	
Post Cure Time,85 °C, min	45
Post Cure Time,120 °C, min	30

*Avoid the resin exposure to light.

Direction of Use

1. The package of this product which is refrigated in -40~-5°C can be brought to ambient conditions by allowing to stand at room temperature(14~34°C) for 1 to 2 hours. Do not loosen container cover before temperature equilibration.
2. 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.
3. After heat curing stage, cool down the part gradually can minimize the thermal stress.
4. Some specific substances may inhibit the reactivity of the resin, such as amines, amine-hardened epoxy resins and polyurethanes (PU)...etc. Direct or indirect contact with the above substances may lead to the reduction of the reaction rate of the resin, or even the inability to carry out the reaction. When you have the above doubts, you can test the resin coating on a small area of the material to confirm.

Typical Cured Properties*1

Glass Transition Temp.,(TMA)°C	115
CTE*2 (<Tg) ,μm/m/ °C	25
CTE*2 (>Tg), μm/m/ °C	45
Degradation Temp. (TGA 10°C /min), °C	390
Durometer Hardness, Shore D	92
Volume shrinkage%	0.95

*1 Specimen Cure Condition：6,000mJ/cm^2 + 120°C / 30min
*2 CTE: Coefficient of Thermal Expansion

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. Shelf life of this product is six months. Before using, it should place this product at 14~34°C for 1 to 2 hours. After using, please replace this product at -40°C ~ -5°C. The viscosity and 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. 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 specific information on this product, consult the Material Safety Data Sheet.