



PTUV-1

Photo-curing Adhesive for PCB Sealing and Bonding

Product Description

PTUV-1 is photo-curing adhesive and designed for computer connector PVC/PET/PI and PCB bonding. This product has good surface dryness. Cured resin is not tacky and dust-proof. This product is able to fast curing under the UV light and suitable for encapsulating in electronic field.

Features

1. This resin is suited different plastics bonding.
2. This product will not destroy by external force with high strength and fracture energy.
3. This resin is also suited for encapsulation.
4. This product complies to the 2011/65/EU RoHS regulations.

Typical Uncured Properties

| | PTUV-1 |
|---|---------------|
| Appearance | Liquid |
| Color | Opaque |
| Viscosity* 25°C, S14 10rpm, cps | 19,000~25,000 |
| Specific Gravity@26.6°C | 1.0822 |
| Refractive Index n _D @25.6°C | 1.4749 |
| Certificate | RoHS |
| Solvent Content, % | 0 |

*This value is for reference. Please refer to COA for the actual value.

Typical Curing Properties*

| | |
|---|-------------|
| Recommended Wavelength, nm | 310~400 |
| Minimum Light Intensity, mW/cm ² | > 50 |
| Minimum Light Energy, mJ/cm ² | 1,000~2,000 |

*The minimum light energy is for reference.

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. For maximum bonding strength apply adhesive evenly to both surfaces to be jointed.
3. Cure time on the really part will depend upon factors such as part geometry, materials to be bonded, bondline thickness and efficiency of the UV light. Cure schedule should be confirmed with actual production parts and equipment.
4. Please standardize the UV lamp intensity and illumination. Over exposure will not affect the resin properties, but the resin properties will be changed if there is not enough exposure. The resin may have lower reaction rate and may not pass the environmental test experiments.
5. This product may cause skin irritation to sensitive personnel.

Typical Cured Properties

| | |
|--|-----------------------|
| Glass Transition Temp.,(TMA), °C | 33 |
| CTE* (-35~5°C), µm/m/ °C | 102 |
| CTE* (50~110°C), µm/m/ °C | 248 |
| Durometer Hardness ASTM D2240-03, Shore D | 63±2 |
| Specific Gravity @26°C | 1.1764 |
| Water Absorption(25.4°C/24hr), % | 6.84 |
| Shear Strength, Acrylic vs. Acrylic, kgf/cm ² | 44 |
| Shear Strength,Glass vs. Glass, kgf/cm ² | 24 |
| Coefficient of Elasticity, MPa | 0.274 |
| Refractive Index n _D @25.8°C, 57%RH | 1.4982 |
| Volume Shrinkage, % | 8.01 |
| Volume Resistivity, ohm-cm | 31.8×10 ¹³ |
| Surface Resistivity, ohm | 18×10 ¹² |

* CTE: Coefficient of Thermal Expansion

Storage and Shelf Life

This product should be kept without any possibility of light exposure. Replace the lid immediately after use. Shelf life of this product is one year when stored in dark place 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 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.