

UV5102

VGA Chip Photo-curing Adhesive for Connector Reinforcement

UV5102 is photo-curing adhesive designed for the bonding of computer connector PVC/PET/PI and metal connector. The connector will not peel off and short-circuit when the connector is bending. Showing excellent hardness and surface drying, this product will not bond hands or dust. This resin can fast-cure for encapsulating of electronic field.

FEATURE

- This resin is suited for bonding many plastic materials.
- This product will not destroy by external force with high strength and absorb fracture energy.
- This product can used for encapsulation applications.
- This product complies to the 2011/65/EU RoHS regulations.

TYPICAL UNCURED PROPERTIES

| Properties | UV5102 |
|--------------------------------------|-----------------|
| Composition | UV adhesive |
| Appearance | Liquid |
| Color | Opaque |
| Viscosity* *25°C, S14 100rpm, cps | 4,500 ~ 6,100 |
| Viscosity* *25°C, S14 10rpm, cps | 24,000 ~ 38,000 |
| Thixotropic Index | 4.5~6.0 |
| Specific Gravity @25°C | 1.10 |
| Solvent Content, % | 0 |

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

TYPICAL CURING PROPERTIES *

| Properties | UV5102 |
|---|-------------|
| Recommended Wavelength, nm | 310~365 |
| Minimum Light Intensity, mW/cm ² | > 50 |
| Minimum Light Energy, mJ/cm ² | 1,000~2,000 |

*The minimum light energy is for reference.

TYPICAL CURED PROPERTIES

| Properties | UV5102 |
|---|-----------------------|
| Glass Transition Temp., (TMA), °C | 86 |
| CTE* (<T _g), μm/m/°C | 110 |
| CTE* (>T _g), μm/m/°C | 195 |
| Durometer Hardness ASTM D2240-03, Shore D | 76 |
| Shear Strength, PC vs. PC, kgf cm ² | 63 |
| Elongation, % | 56 |
| Breaking Value, N/mm ² | 23 |
| Tensile strength, N/mm ² | 18 |
| Thermal Conductivity, W/mK | 0.18 |
| Volume Resistivity, @500V, Ohm-cm | 5.61*10 ¹⁴ |
| Surface Resistivity, @500V, ohm | 1.76*10 ¹⁵ |
| Dielectric Constant/ Dielectric loss @100Hz | 3.4721/ 0.0757 |
| Dielectric Constant/ Dielectric loss @1KHz | 3.3871/ 0.0506 |
| Dielectric Constant/ Dielectric loss @10KHz | 3.1178/ 0.0513 |
| Dielectric Constant/ Dielectric loss @100KHz | 3.2915/ 0.1733 |

*CTE: Coefficient of Thermal Expansion

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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 fators 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 envrionmental test experiments.
5. This product may cause skin irritation to sensitive personnel.

STORAGE AND SHELF LIFE

This product should be kept without any possibility of light exposure. Replace the lid immediately after use. This product has eight months shelf life when stored in dark place below 14~34°C in original, unopened containers 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.

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.