



Photo-curing Adhesive for Plastics, TPU and Metals Bonding

Product Description

FP321 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 and is particularly suited for applications where high transparency, high speed curing and clear for encapsulating of electronic field.

Features

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

Typical Uncured Properties

	FP321
Appearance	liquid
Color	Opaque
Viscosity* 25°C, S14 20rpm, cps	21,000~25,000
Specific Gravity@26.6°C	1.1344
Refractive Index n _D @25°C	1.488
Certificate	RoHS
Solvent Content, %	0

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

Typical Curing Properties*

Recommended Wavelength, nm	310~365
Minimum Light Intensity, mW/cm ²	> 50
Minimum Light Energy, mJ/cm ²	1,500~3,000

*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	48
CTE*2 (50~120°C), μm/m/°C	258
Durometer Hardness ASTM D2240-03, Shore D	68±2
Specific Gravity @ 25°C	1.2164
Water Absorption Ratio (24.7°C / 24hr), %	9.63
Shear Strength, Acrylate vs. Acrylate, kgf/cm ²	105
Shear Strength, Glass vs. Glass, kgf/cm ²	51
Shear Strength, Glass vs. Al, kgf/cm ²	55
Elongation, 25°C, %	79
Volume Shrinkage, %	6.74

* 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. This product has a one year minimum shelf life 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.