



Photo-curing Adhesive for P+R Bonding Application

Product Description

FP5202 is developed for the bonding of PC, ABS, TPU, PC electroplating for substrates, such as aluminum, iron and stainless steel. This product exhibits the properties of high transparency, high speed curing and clear that is suited for electronic field encapsulation and rapid production.

Features

1. This product is suited for bonding to plastics.
2. This product is flexible and fracture energy.
3. This product complies to the 2011/65/EU RoHS regulations.

Typical Uncured Properties

Appearance	FP5202
Color	Liquid
Color	Colorless
Viscosity* 25°C, S14 10rpm, cps	15,000~20,000
Spfcific Gravity @27°C	1.0417
Refractive Index n _D @25°C	1.474
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	1,500~2,000

*The minimum light energy is for reference. (Different machines lead to different light energy.)

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 real part will depend on 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.

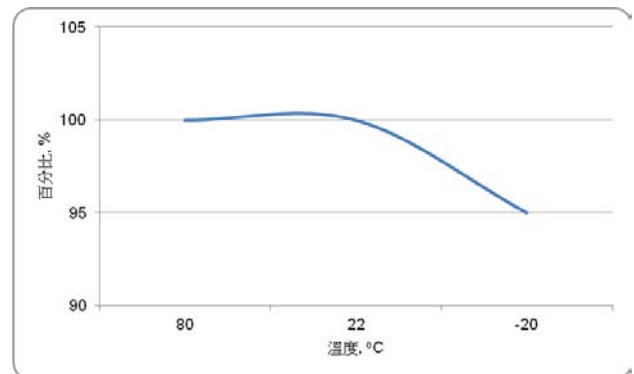
Typical Cured Properties

Glass Transition Temp.,(TMA), °C	19
CTE*1 (<Tg), μm/m/°C	218
CTE*1 (>Tg), μm/m/°C	355
Durometer Hardness ASTM D2240-03, Shore D	45±2
Durometer Hardness ASTM D2240-03, Shore A	85±2
Spfcific Gravity @27°C	1.1745
Water Absorption Ratio (25°C/ 24hr), %	27.88
Shear Strength Glass vs Glass, kgf	11
Refractive Index n _D @27°C, 53%RH	1.49
Volume Shrinkage, %	11.31
Working Temperature Range, °C	-20~80

*1 CTE: Coefficient of Thermal Expansion

*2 Environmental Test Experiment: -20°C/24hr, Shear Strength at 23°C, the result is 95% of R.T. Shear Strength. Specimen is PC.

*3 Environmental Test Experiment: 80°C/24hr, Shear Strength at 23°C, the result is 100% of R.T. Shear Strength. Specimen is PC.



Storage and Shelf Life

This product should be stored in cool and dark place. This product should be kept without any possibility of sunlight or ultraviolet exposure. Replace the lid immediately after use. Keep without any possibility of light exposure. Shelf life of this product is 8 months when stored at 14~34°C in the original and unopened containers. If the product is opened and used, shelf life of this product will only be 6 months.

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.