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Technical Data Sheet

FP 5202

Photo-curing Adhesive for P+R Bonding Application

Product Description

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

Features

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

Typical Uncured Properties

	FP5202
Appearance	Liquid
Color	Colorless
Viscosity* 25°C, S14 10rpm, cps	15,000~20,000
Spcific 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.)

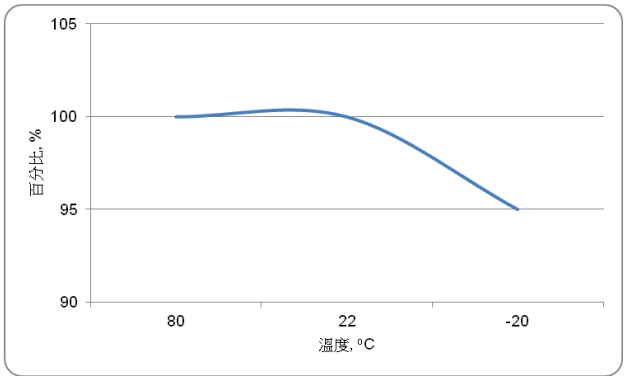
Direction of Use

1. It should be applied to a clean surface 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, bond line thickness, and efficiency of the UV light. The cure schedule should be confirmed with actual production parts and equipment.
4. Please standardize the UV lamp intensity and illumination. Overexposure will not affect the resin properties, but the resin properties will change if insufficient exposure exists. The resin may have a lower reaction rate and 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
Spcific 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
Elongation,%	282
Elastic Modulus, MPa	1.28

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



Storage and Shelf Life

This product should be stored in a 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. The 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, the 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 due to long-term recurrent application to the skin. However, contact with skin is likely to produce mild transient reddening. Removing adhesive from the skin thoroughly with soap and water is important. DO NOT use solvents for cleaning hands. This product has moderate acute toxicity when swallowed. 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.