

UV5105

Photo - curing adhesive for Plastic bonding

UV5105 is photo-curing adhesive designed for plastics bonding, such as ABS, HIPS, PS, PC, PVC, and Acrylic. This resin is a solvent-free acrylated urethane adhesive, which provides a good surface dryness, and is used for plastic brushing. This product can fast cure under ultraviolet light and have good adhesion strength.

FEATURE

- This product has fast curing properties and high adhesion strength.
- Cured product demonstrates the very high compatibility to many substrates, especially for plastics.
- This product has good fluidity and good handling properties.
- This product complies to the 2011/65/EU RoHS regulations.

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 UNCURED PROPERTIES

Properties	UV5105
Composition	Acrylated urethane
Appearance	Liquid
Color	Colorless
Viscosity*25°C, cps S14 50rpm	6,500 ~ 9,900
Refractive index nD@25.2°C	1.4791
Specific Gravity @25°C	1.056
Solvent Content, %	0

TYPICAL CURED PROPERTIES

Properties	UV5105
Durometer Hardness, ASTM D2240-03, Shore D	65
Specific Gravity @25°C	1.13
Water Absorption Ratio (25°C/24hr), %	3.89
Shear Strength PVC vs. PVC, kgf/cm ²	214
Shear Strength PVC vs. Al, kgf/cm ²	25
Shear Strength PVC vs. glass, kgf/cm ²	58
Elongation, %	208
Modulus of Elasticity, N/mm ²	21
Refractive Index nD @25.3°C	1.5012
Volume Resistivity, @500V, ohm-cm	7.11*10 ¹⁴
Surface Resistivity, @500V, ohm	1.35*10 ¹⁵
Dielectric Constant/ Dielectric loss @100Hz	3.57/0.11
Dielectric Constant/ Dielectric loss @1KHz	3.40/0.10
Dielectric Constant/ Dielectric loss @100KHz	3.20/0.11

TYPICAL CURING PROPERTIES *

Properties	UV5105
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

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 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.

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