

UV5138

Photo-light & UV Curing Adhesive

UV5138 is a one-component, UV-curable, acrylic adhesive. This product is specially designed for bonding and fixing various electronic components and plastic substrates; the product has the characteristics of good flexibility, fast curing speed, high bonding strength, and good weather resistance.

UNCURED PROPERTIES

Properties	Reference
Chemical composition	Polyurethane acrylic resin
Physical state	Liquid
Appearance	Red viscous liquid
Viscosity (25°C, spindle viscometer 4#12 mPa·s)	22000-28000
Specific gravity Kg/L	1.08
Solvent content%	0
Heavy metal contentPPM	0

Properties	Test method	Reference
Hardness	Shore A	30-35
Exterior	Visual inspection	Red
Operating temperature range	- 40~130°C	Customer self-test
Shear strength	PC/ABS	≥50N/cm ²
Peel strength	PC/ABS	≥20N/cm

CURING PROPERTIES

UV5138 will cure under sufficient ultraviolet irradiation conditions. The curing speed and depth depend on the light intensity, spectral distribution of the light source, irradiation time and the light transmittance of the adhered material. The following data are measured under the condition that a 395nm wavelength LED surface light source generates 220mw/cm² ultraviolet radiation:

Properties	Reference
Tack free time (1mm)	/
Deep curing time (1mm)	10-15S
Full cure energy (1mm)	3500 mj/cm ²

*Recommended UV Cure System: FUV-100 Oven Curing or CUV-350 Mercury Curing System

CURED PROPERTIES

The following data are measured after curing with a 395nm wavelength LED surface light source with a cumulative energy of 3500mj/cm²:

ELECTRICAL PROPERTIES

Properties	Reference
Dielectric constant (100MHz)	3.08
Dielectric loss (1MHz)	0.03
Dielectric strength (KV/mm)	26.7
Surface resistivity (Ω)	1.49×10 ¹⁶
Volume resistivity (Ω.cm)	4.64×10 ¹⁴

WEATHER RESISTANCE TEST

The following data are measured after curing with a 395nm wavelength LED surface light source with a cumulative energy of 3500mj/cm²:

Base material	Test Conditions	Bonding strength retention rate (%)
PC/GLASS	65°C 90% RH (72H)	80
PVC/GLASS	65°C 90% RH (72H)	75
Stainless steel/PVC	65°C 90% RH (72H)	82
Stainless steel/GLASS	65°C 90% RH (72H)	92

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STORAGE CONDITIONS

Please store in a cool and dark place. Please close the bottle cap after opening it. Do not pour the unused glue back into the original bottle. The optimal storage temperature is 8-28°C. Too high or too low will affect the performance of the glue. The shelf life is 8 months.

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.