

UV5127

UV Photo-curing Adhesive

UV5127 is a one-component, UV-curable, acrylic adhesive. This product is specially designed for bonding, fixing and covering protection of electronic components; the product has the characteristics of medium viscosity, fast curing speed, and good weather resistance.

UNCURED PROPERTIES

Properties	Reference
Chemical composition	Polyurethane acrylic resin
Physical state	Liquid
Appearance	Colorless transparent viscous liquid
Viscosity (25°C, spindle viscometer4#30 mPa.s)	12000-16000
Specific gravity Kg/L	1.08
Solvent content (%)	0
Heavy metal content PPM	0

CURING PROPERTIES

Curing will occur under sufficient ultraviolet irradiation. 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 of ultraviolet radiation of 20mw/cm² produced by a high-pressure mercury lamp:

Properties	Reference
Tack free time (1mm)	5-10 s
Deep curing time (1mm)	5-10 s
Full cure energy (1mm)	400 mJ/cm ²

CURED PROPERTIES

The following data are measured after curing with a high-pressure mercury lamp source with a cumulative energy of 400 mj/cm²:

Properties	Test method	Reference
Hardness	Shore D	68-72
Operating temperature range	-40-130 °C	Customers conduct self-test with workpieces
Shear strength	PC/PVC	≥100N/cm ²
Peel strength	PC/PVC	≥20N/cm ²

ELECTRICAL PROPERTIES

Properties	Reference
Dielectric constant (100MHz)	3.08
Dielectric loss (1MHz)	0.03
Dielectric strength (KV/mm)	26.7
Surface resistivity (Ω)	1.49x10 ¹⁶
Volume resistivity (Ω.cm)	4.64x10 ¹⁴

* Recommended CUV-1800M Inline UV Mercury Curing System

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WEATHER RESISTANCE TEST

The following data are measured after curing with a high-pressure mercury lamp source energy accumulation of 400 mj/cm²:

Base material	Test conditions	Bonding strength (rate)
PC/GLASS	65°C 90% RH (72h)	80
PVC/GLASS	65°C 90% RH (72h)	85
Stainless steel/ PVC	65°C 90% RH (72h)	82
Stainless steel/ GLASS	65°C 90% RH (72h)	92

STORAGE

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.