

UV5122

Light-curing Gel Adhesive

UV5122 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 | Test method | Value |
|--------------------------------------------|---------------------------|-----------------------------------------|
| Chemical composition | Determined by composition | Polyurethane acrylic resin |
| Physical state | Visual inspection | Liquid |
| Appearance | Visual inspection | Light yellow transparent viscous liquid |
| Viscosity (25°C, spindle viscometer mPa·s) | GB/T 2794-2013 | 24,000-28,000 |
| Specific gravity | GB/T 13354-1992 | 1.08 g/cm ³ |
| Solvent content | Determined by composition | 0 |
| Heavy metal content | Determined by composition | 0 |

CURING CONDITIONS

UV5122 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 of ultraviolet radiation of 20mw/cm² produced by a high-pressure mercury lamp:

| Curing Schedule | Value |
|-----------------------------------------------|-------|
| Tack-free time, s | 8~12 |
| Deep curing time (1mm) , s | 20~25 |
| Fully curing energy (1mm), mj/cm ² | 600 |

CURED PROPERTIES

The following data were measured after curing at a cumulative energy of 600 mj/cm² from a high-pressure mercury lamp source:

| Properties | Test method | Value |
|---------------------------------|-------------------|--------------------------------------------------------|
| Hardness (Shore D) | GB/T 2411-2008 | 45~50 |
| Operating temperature range | -40~130°C | The customer cooperates with the work-piece self-test. |
| Appearance | Visual inspection | Clear |
| Shear strength | PC/PVC | >150N/cm ² |
| Peel strength | PC/PVC | >30N/cm ² |
| Dielectric constant (100MHz) | GB/T 1409-2006 | 3.08 |
| Dielectric loss (1MHz) | GB/T 1409-2006 | 0.03 |
| Dielectric strength (KV/mm) | GB/T 1408.1-2016 | 26.7 |
| Surface resistivity (Ω) | GB/T 31838.3-2019 | 1.49x10 ¹⁶ |
| Volume resistivity (Ω·cm) | GB/T 31838.2-2019 | 4.64x10 ¹⁴ |
| Bonding strength retention rate | | |
| PC/ GLASS | 65°C 90% RH (72H) | 80% |
| PVC/ GLASS | 65°C 90% RH (72H) | 85% |
| SS/PVC | 65°C 90% RH (72H) | 82% |
| SS/GLASS | 65°C 90% RH (72H) | 92% |

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STORAGE & SHELF LIFE

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.