

UV5135

Photo-light & UV Curing Adhesive

UV5135 is a one-component, UV-curable, acrylic adhesive. This product is designed for the bonding of PMMA, PC, TPU, PET and other plastics. It is mainly used for projects that overflow glue and require surface drying. It has moderate viscosity, strong adhesion, surface drying, high transparency, and good weather resistance. Features, plastic and glass also have certain adhesion.

UNCURED PROPERTIES

| Properties | Reference |
|---|---|
| Chemical composition | Polyurethane acrylic resin |
| Physical state | Liquid |
| Appearance | Light yellow transparent viscous liquid |
| Viscosity (25°C, spindle viscometer 2#30 mPa·s) | 400-600 |
| Specific gravity Kg/L | 1.05 |
| Solvent content% | 0 |
| Heavy metal content PPM | 0 |

| Properties | test method | Reference |
|-----------------------------|-------------------|---|
| Hardness | Shore D | 70-80 |
| Operating temperature range | -40~130°C | Customers conduct self-test with workpieces |
| Exterior | Visual inspection | transparent |
| Bonding strength | PC/PC | >20N/cm ² |
| Bonding strength | APET/APET | >20N/cm ² |

CURING PROPERTIES

UV5135 will cure under sufficient UV 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 ultraviolet radiation conditions of 20mw/cm² generated by a high-pressure mercury lamp (it is recommended to use a UV lamp of 400W or above):

| Properties | Reference |
|------------------------|------------------------|
| Tack free time (1mm) | 5-10 S |
| Deep curing time (1mm) | 20-25 s |
| Full cure energy (1mm) | 600 mj/cm ² |

* Recommended UV Curing System: GLUDITEC Mercury UV Curing System or High-power LED UV Curing System.

CURED PROPERTIES

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

WEATHER RESISTANCE TEST

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

| Base material | Test Conditions | Bonding strength retention rate (%) |
|-----------------------|-----------------------------------|-------------------------------------|
| PC/PC, PET/PET | -25 °C (1h) + 55 °C (1h)20 cycles | 92 |
| PMMA/PMMA, PET/GLASS | -25 °C (1h) + 55 °C (1h)20 cycles | 92 |
| PC/GLASS, PET/PET | 65°C90%RH (72h) | 95 |
| PMMA/GLASS, PET/GLASS | 65°C90%RH (72h) | 95 |

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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.