

AC A1438

UV-Curable Epoxy Sealant for OLED devices

Features

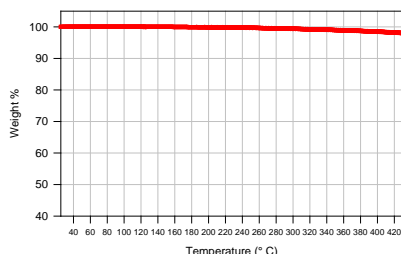
- High Tg
- Low moisture permeability
- Good adhesion to various substrates: glass, metal and ceramic.
- Low CTE

Description

- UV-curable epoxy sealant

Thermogravimetric analysis

- Thermal stability of cured adhesive was studied by thermogravimetric analysis in nitrogen at a scan rate of 20 °C/min



APPLICATIONS

Semiconductor packaging and display edge sealing.

TYPICAL PROPERTIES

Liquid

Viscosity (cps, 25 °C)	50,000 – 60,000
Storage (°C)	20 – 25
Shelf life (20 – 25 °C)	6 months
Pot life (20 – 25 °C)	3 months

Cured film

Shrinkage (linear, %) <0.3

Water Transmission Rate
(50 °C/95% RH, g/m² 24 hrs, ASTM E96-80) 3.0

Hardness – Shore D 95

Glass transition temperature (°C) (DMA) 140 - 145

Physical properties tested at 25°C, 50% RH (ASTM D638)

Elongation (%) 4
Modulus, psi (Kgf/mm²) 468,000 (328)

Coefficient of thermal expansion (TMA), 75 µm film
below Tg (x10⁻⁶), °C⁻¹ 35
above Tg (x10⁻⁶), °C⁻¹ 90

UV curing conditions

Flood curing system (high pressure Hg lamp)

UV dose (J/cm²) 2.0 – 4.0
Tack free time (100 mW/ cm²) 20 to 40 sec

Operating temperature (°C) -60 to 180

Maximum relative humidity for curing: 40%

SAFETY AND HANDLING

The un-cured adhesive can be cleaned from apparatus with isopropyl alcohol (IPA), methyl ethyl ketone (MEK), or commercial alcohol based cleaning solution.

Use caution in handling this material. Avoid direct skin and eye contact. Use only in well ventilated areas. Use protective clothing, **gloves and safety goggles**. Read [Material Safety Data Sheet](#) before handling.

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