



AC A116

UV-Curable, Low Modulus Adhesive

Features

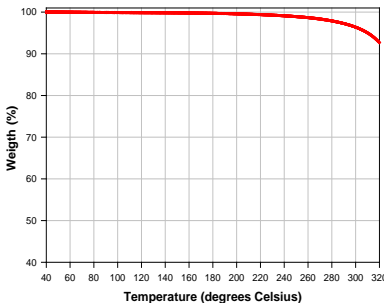
- Dual cure (UV or heat)
- Flexible
- Low modulus
- Excellent adhesion
- Stress absorbance

Description

- Dual cure, low modulus adhesive

Thermogravimetric analysis

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



APPLICATIONS

Shock absorption, strain relief and damping applications for optical components

TYPICAL PROPERTIES

Liquid

Viscosity (cps, 25 °C)	23,000 – 29,000
Storage (°C)	15 - 25
Shelf life (15-25 °C)	6 months
Pot life (15-25 °C)	3 months

Cured film

Water absorption (% , 100 °C until saturation)	0.15
Shrinkage (linear, %)	<0.3
Hardness – Shore D	15
Shore A	50 to 65
Glass transition temperature (°C)	-20 to -15

Coefficient of thermal expansion (TMA), 75 µm film

below Tg (x10 ⁻⁶), °C ⁻¹	85
above Tg (x10 ⁻⁶), °C ⁻¹	210

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

Tensile strength, psi (Kg/mm ²)	450 (0.32)
Elongation (%)	180
Modulus, psi (Kg/mm ²)	300 (0.21)

UV curing conditions

Spot cure system – UV dose (J/cm²)

250 – 450 nm filter, air (in nitrogen or between 2 substrates) 5 - 6 (1 – 2)

Suggested curing set-up:

Intensity: 500 mW/cm², Cure time: 10 - 15 sec, Cure distance: 1 cm

Flood cure system – UV dose (J/cm²), air

0.6 – 1

* Minimum intensity recommended for Spot lamp system: 100 mW/cm²

** Intensity recommended for Flood lamp system: 49 WPCM or 125 WPI

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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