



# AC M116-L

## Low Temperature Dual Cure, Low Modulus Adhesive

### Features

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

### Description

- Dual cure, low modulus adhesive

### APPLICATIONS

Shock absorption, strain relief and damping applications for optical components

### TYPICAL PROPERTIES

#### Liquid

	<b>AC M116-L</b>
Viscosity (cps, 25 °C)	24,500 – 29,000
Storage (°C)	15 - 25
Shelf life (20-25 °C)	1 month
Pot life (20-25 °C)	2 weeks

#### Cured film

Water absorption (% , 100 °C until saturation)	0.15
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Shrinkage (linear, %)	0.3
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Hardness – Shore D	15
Shore A	65

Glass transition temperature (°C)	0
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Coefficient of thermal expansion (TMA), 75 µm film	
below Tg (x10 <sup>-6</sup> ), °C <sup>-1</sup>	85
above Tg (x10 <sup>-6</sup> ), °C <sup>-1</sup>	210

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

Tensile strength, psi (Kgf/mm <sup>2</sup> )	450 (0.32)
Elongation (%)	180
Modulus, psi (Kgf/mm <sup>2</sup> )	300 (0.21)

#### UV curing conditions

##### Spot cure system – UV dose (J/cm<sup>2</sup>)

250 – 450 nm filter, air (in nitrogen or between 2 substrates)	2 - 3 (1 – 2)
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##### Suggested curing set-up:

Intensity: 500 mW/cm<sup>2</sup>, Cure time: 4-10 sec, Cure distance: 1 cm

Flood cure system – UV dose (J/cm <sup>2</sup> ), air	0.6 – 1
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#### Thermal curing conditions (between 2 substrates or in nitrogen)

75 °C	90 - 180 minutes
80 °C	75 - 120 minutes

If thermal curing is the only curing method, the material is required to be placed between two substrates or to be cured under nitrogen to obtain a fully cured film.

### 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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