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AC M620

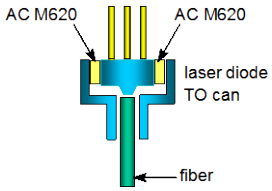
Dual Cure Adhesive for Diode Applications

Features

- Dual cure (UV or Heat) capability
- Medium Tg
- Flexible film
- High viscosity (resistance to flow)

Description

- Dual cure, flexible adhesive



APPLICATIONS

To bond laser diode TO cans where UV light cannot penetrate through the metal or the non-UV transferable plastic TO cans. It is recommended to be used where instant fix for the aligned parts can be accomplished by UV, then thermal post cure of the fixed parts provides complete cure in areas where UV light cannot penetrate.

TYPICAL PROPERTIES

Liquid	
Viscosity (cps, 25 °C)	17,500 – 23,000
Storage (°C)	15 - 25
Shelf life (15 - 25 °C)	3 months
Pot life (15 - 25 °C)	1 month
Cured film	
Water absorption (%, 100 °C until saturation)	0.17
Shrinkage (linear, %)	0.4
Refractive index of cured film (25°C)	
@ 589 nm	1.510
@ 1310 nm	1.497
@ 1550 nm	1.494
Hardness – Shore D	70
Glass transition temperature (°C, DMA)	60
Coefficient of thermal expansion (TMA), 75 μm film	
below Tg (x10^{-6}), °C^{-1}	80
above Tg (x10^{-6}), °C^{-1}	190
Physical properties tested at 25°C, 50% RH (ASTM D638)	
Tensile strength, psi (Kgf/mm^2)	2,370 (1.7)
Elongation (%)	74
Modulus, psi (Kgf/mm^2)	45,000 (31)
Operating temperature (°C)	-60 to 200
Thermal weight change (%)	
100 °C for 48 hrs	0.35
125 °C for 48 hrs	0.40
UV curing conditions	
Spot cure system – UV dose (J/cm^2)	
250 – 450 nm filter in air	12 - 14
250 – 450 nm filter in nitrogen or between 2 substrates	2 - 4
Flood cure system – UV dose (J/cm^2)	
in air	2 - 3
in nitrogen or between 2 substrates	1 – 2
Thermal curing conditions (between 2 substrates or in nitrogen)	
90 °C	120 – 180 minutes
100 °C	90 - 120 minutes
125 °C	60 - 90 minutes

* Minimum intensity recommended for Spot lamp system: 100 mW/cm^2
** 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.

Revised 12/2002