

AC A550

UV-Curable Optical Adhesive

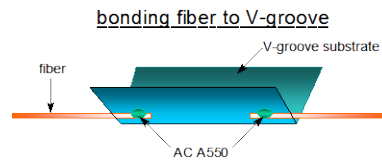
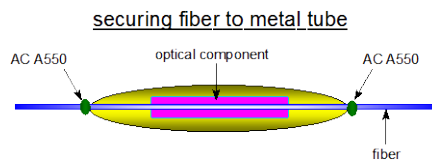
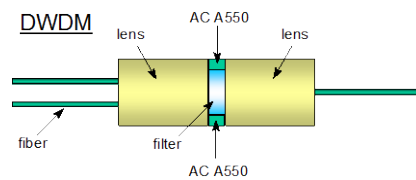
Features

- Optical clear
- Fast cure
- Excellent adhesion
- High viscosity

Description

- UV-Curable adhesive

Applications



APPLICATIONS

Encapsulation and bonding of optical components, including bonding lenses to filters in DWDM, fiber to V-groove substrates, and fiber to metal or plastic tubes.

TYPICAL PROPERTIES

Liquid

Viscosity (cps, 25 °C)	25,000 to 35,000
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)	0.2
Shrinkage (linear, %)	<0.4
Refractive index of cured film (25°C)	
@ 589 nm	1.508
@ 1310 nm	1.495
@ 1550 nm	1.492

Hardness – Shore D 75

Glass transition temperature (°C, DMA) 70

Coefficient of thermal expansion (TMA), 75 µm film
 below Tg ($\times 10^{-6}$), °C⁻¹ 65
 above Tg ($\times 10^{-6}$), °C⁻¹ 190

Physical properties tested at 25°C, 50% RH (ASTM D638)
 Tensile strength, psi (kg/mm²) 4,079 (29)
 Elongation (%) 15
 Modulus, psi (kg/mm²) 111,000 (78)

Thermal weight change (%)
 125 °C for 24 hrs 0.11
 175 °C for 4 hrs 0.20

Operating temperature (°C) -60 to 170

UV curing conditions

Spot cure system – UV dose (J/cm²)
 250 – 450 nm filter 3.0 – 5.0

Flood cure system – UV dose (J/cm²) 1.0 – 2.0

* 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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