



AC R221

Hard UV-Curable Low Refractive Index Cladding Compound

Features

- Low refractive index
- Hard cladding material
- Excellent solvent resistance

Description

- UV-curable cladding material

APPLICATIONS

Optical fiber hard cladding, display and optic applications.

TYPICAL PROPERTIES

Liquid

Viscosity (cps, 25 °C)	100 - 150
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)	0.1
Outgas (weight %, 125°C, 120 hr, air)	0.10
Shrinkage (linear, %)	0.4
Outgas (weight %, 125°C, 120 hr, air)	0.15
Refractive index of cured film (25°C)	
@ 589 nm	1.416
@ 1320 nm	1.407
@ 1550 nm	1.405
Glass transition temperature (°C)	70
Coefficient of thermal expansion (TMA), 75 µm film	
below Tg (x10 ⁻⁶), °C ⁻¹	72
above Tg (x10 ⁻⁶), °C ⁻¹	160
Physical properties tested at 25°C, 50% RH (ASTM D638)	
Elongation (%)	10
Modulus, psi (kgf/mm ²)	35,000 (25)
Hardness – Shore D	60-70
UV curing conditions	
<u>Flood cure system – UV dose (J/cm²) - Under Nitrogen</u>	>1.0

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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