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NORLAND OPTICAL ADHESIVE NOA 87

Norland Optical Adhesive 87 is an optically clear one component, solventless, liquid adhesive that will cure when exposed to long wavelength ultraviolet and/or visible light. This adhesive is formulated to meet the Bellcore specification of 85°C/85RH for 2000 hours.

NOA 87 is recommended for bonding glass or plastics. This adhesive can be cured by ultraviolet light between 315 and 400 nanometers and visible light between 400 and 420nm. The peak absorption wavelengths are 325, 365 and 400nm. Minor absorption wavelengths are 410, 420nm. Full cure requires 3.5 Joules/cm^2 of UV or visible energy.

When fully cured NOA 87 has very good adhesion to glass, but has not reached its maximum adhesion to glass. The maximum adhesion will occur at room temperature after one week or can be accelerated by aging the bonded piece at 50°C for 12 hours. After aging the adhesive can withstand temperatures from -125°C to 125°C, while non-aged glass and plastic bonds withstand temperatures from -15°C to 60°C. Fully aged bond lines will survive exposure to 85°C at 85% relative humidity for 2000 hours.

Typical Properties of NOA 87

Viscosities at 25°C	900-1500 cps
Color	Slight yellow tint that disappears upon curing.
Refractive Index cured Polymer	1.52
Modulus of Elasticity (psi)	209,700
Tensile Strength (psi)	4,880
Elongation at Failure	13%
Hardness-Shore D	50

Keep NOA 87 in a cool (5-22°C) dark place. If refrigerated, allow the adhesive to come to room temperature before using

Care should be taken in handling this material. The material Safety Data Sheet should be read for this product. Prolonged contact with skin should be avoided and affected areas should be washed thoroughly with copious amounts of soap and water. If adhesive gets into eyes, flush with water for 15 minutes and seek medical attention.

SPECTRAL TRANSMISSION OF NOA 87