

DATA SHEET

July 31, 2022

LM-155 : Optical Coating / Adhesive

LM-155 is a low modulus UV curable coating/adhesive. The material was optimized for curing by both UV LED and UV Mercury lamps. A typical application is re-coating for optical fibers.

LM-155 is characterized by a plasto-elastic behavior. The non-elastic part is important for stress relief and better adhesion. Stress on the interface originates from the shrinkage during polymerization and is found in all polymerizing systems. LM-155 is made to accommodate the interfacial shrinkage effect.

Properties

	Liquid state
RI liquid at 589 nm	1.530
Density, g/cm ³	1.12
Viscosity, cps @ 25°C	2500
Surface tension, dyne/cm	23
color	Clear, yellowish
	Cured state
color	Clear, yellowish
Transparency 450-1600 nm, 300 micron film	99%
RI cured at 589 nm	1.550
RI cured at 1550 nm	1.540
Adhesion to silica, 90° Peel, g/cm	1200
Secant Modulus @2.5%	29
Young Modulus, MPa	50
Tensile Strength, MPa	8
Elongation to Break	130
Linear shrinkage, %	2.0

The product is supplied pre-filtered to below 1 micron particles.

Storage

1. Avoid unnecessary exposure to ambient light and moisture.
2. Long term storage should be at ambient conditions of 15-30°C. Do not refrigerate. The material may show haze below 10°C. It will clear up upon warming back to ambient conditions.
3. The shelf life is 12 months.

Application

Curing can be achieved by any source of UV at 300-400nm. Typically, a dose of 500-4000 mJ/cm² is necessary. Keep the bottle closed in all times when not in use. The material is sensitive to light.

Safety: Refer to the SDS

Note: The above information is believed to be reliable, but it is not to be taken as a representation, warrantee or guarantee. Customers should perform their own QC, QA and evaluation tests.