

DATA SHEET

LM-144 : Low Modulus Optical Coating / Adhesive

LM-144 is a low refractive index UV curable coating/adhesive. It has excellent adhesion to glass, metals and some plastics. A typical application is re-coating in cascaded Cladding Light Strippers. It is distinguished by its low modulus which enables excellent endurance under repetitive, high amplitude thermal cycles, which are typical in high power Cladding Light Strippers.

Properties

	Liquid state
RI liquid at 589 nm	1.426
Density, g/cm ³	1.15
Viscosity, cps @ 25°C	1900
	Cured state
RI cured at 589 nm	1.439
RI cured at 950 nm	1.432
Adhesion to glass, 90° Peel, g/cm	800
Elastic modulus, MPa	21
Tensile Strength, MPa	5
Elongation at Break, %	140
Hardness, Shore A	77

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 10-30°C.
3. The coating is supplied in glass bottles. Keep container closed to avoid moisture penetration.
4. The shelf life is 12 months.

Application

Curing can be achieved by any source of UV at 300-400nm. Typically, a dose of 1000-2000 mJ/cm² is necessary. To prevent tackiness on exposed surfaces, it is recommended to cure in an inert atmosphere (e.g. under nitrogen). There is no need for inert atmosphere when curing between two layers or in a mold (more on inert curing in the Technical Support page on our web site).

Keep the bottle closed at 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.

Updated: May 22, 2025