

Preliminary DATA SHEET

LAM-1425-XP1 : Optical Lamination Adhesive

LAM-1425-XP1 is a PFAS-Free low refractive index UV curable adhesive designed for bonding flat surfaces such as glass sheets and plastic films. Typical applications are bonding (or lamination) of waveguides in AR displays, smartphone displays or attaching optical touchscreens to an LCD module. It has good adhesion to glass, metals and various plastics (such as PC, PET, PMMA). LAM-1425-XP1 is distinguished by its low modulus which enables improved endurance under thermal cycling and thermal shock.

Properties

	Liquid state
RI liquid at 589 nm	1.421
Density, g/cm ³	1.02
Viscosity, cps @ 25°C	2100
	Cured state
RI cured at 589 nm	1.426
RI cured at 950 nm	1.412
Pull-Off Adhesion, MPa	11.9
Pull-Off Adhesion, 60°C/90% RH, 72 hr, MPa	10.9
Elastic modulus, MPa	4.3
Tensile Strength, MPa	0.7
Elongation at Break, %	22

The product is supplied 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 bottles and in syringes.
4. The shelf life is 6 months.

Application

Curing can be achieved by any source of UV at 300-400nm. Typically, a dose of 2000-4000 mJ/cm² is necessary. There is no need for inert atmosphere when curing between two layers or in a mold. Keep the bottle closed in all times when not in use. The material is sensitive to light and moisture.

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.

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