

LE-139UV-A5

(20% solid in MEK)

Low Refractive Index, Solvent-Based UV-curable Coating Material for Anti-Reflective Film Applications

Features

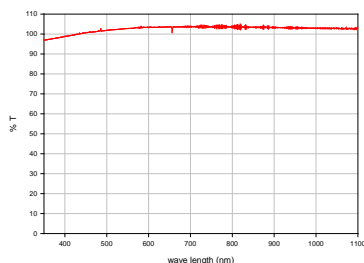
- Low refractive index
- Low haze
- high transparency
- Excellent ADHESION to many types of surfaces
- Excellent refraction ratio

Description

- UV-curable low refractive index for antireflection film applications

UV-Vis spectrum

UV-Vis spectrum (ca. 0.1 μm film)



RESIN PROPERTIES:

LE-139UV-A5 is supplied as 20% solid content in MEK. LE-139UV-A5 is readily dissolved in most common coating resin systems including methyl isobutyl ketone (MIBK), methyl ethyl ketone (MEK), or mixtures of solvents for obtaining the desired coating thickness. Fine-tuning the coating process is required for achieving optimum coating performances.

PROCESS PARAMETERS

The recommended solvent for use in dilution is methyl isobutyl ketone (MIBK). The recommended starting solid content for coating is 3% to 9% when using for anti-reflective applications. Fine-tuning the coating process and solid concentration are required for achieving optimum reflectance performances.

LE-139UV-A5 can be coated onto plastic film or glass surfaces or onto cured coated surfaces.

Coating Process

Substrates: Plastic films, glass, coated plastic films or metal surfaces
Coating: Wire Bar, roller coat, knife coat, spin coat, dip coat, or web coat process
Solvent drying: 80 °C for 1 min. with convection oven or drying by IR heating
Coating thickness: **125 -150 nm**
UV curing (H-bulb): 1 to 1.5 J/cm² in nitrogen

PROPERTIES OF CURED FILM

Properties of LE-139UV-A5	
Refractive index (589 nm @ 25 ° C)	1.38 – 1.39
Adhesion to film or coating surfaces	Excellent
Density (g/mL)	2 g/mL
Tg (° C)	35
Hardness	H to 2H
Elongation (%)	400
Modulus (MPa)	90
% transmission	>93
Shrinkage	no shrinkage

SAFETY AND HANDLING

The un-cured material can be cleaned from apparatus with methyl ethyl ketone (MEK), or acetone.

Use caution in handling this material and solvent. Avoid direct skin and eye contact. Use only in well ventilated areas. Use protective clothing, **gloves, safety goggles and face shield (to avoid both splashing and solvent fumes) for handling solvent-based materials.** . Read [Material Safety Data Sheet](#) before handling.

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