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BD-319

UV-curable 2P Resin for Photo Replication Applications

Features

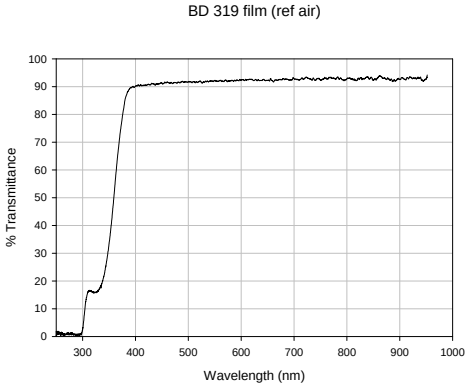
- Excellent replication characteristic
- UV-curable
- Good adhesion to plastic substrates
- Low viscosity
- Spin-coatable

Description

- UV-curable acrylate resin

UV-Vis Spectrum

Free-standing film (125 micron) vs. air reference



APPLICATIONS

Multi-layers photo replicating resin for optical disc applications.

TYPICAL PROPERTIES

Before curing: liquid	
Viscosity (cps, 25 °C)	500 – 600
Storage (°C)	15 – 25
Shelf life (15 - 25 °C)	6 months
Pot life (15 - 25 °C)	3 months
After curing: cured film	
Outgas, weight % (125°C, 120 hr, air)	0.10
Water absorption (%, 100 °C until saturation)	0.3
Shrinkage (%)	3
Hardness – Shore D	75
Glass transition temperature (DMA, °C)	62
Refractive index of cured film (25°C)	
@ 589 nm	1.491
Physical properties tested at 25°C, 50% RH (ASTM D638)	
Tensile strength, MPa	30
Elongation (%)	10
Modulus, MPa	1,000
UV curing conditions	
UV dose (mJ/cm^2 in nitrogen)	>100

***A light source producing 250 to 400 nm is best match for this resin. Cure speed or tack free time depends on the intensity of the UV source, thickness of 2P resin layer, and transmission of the substrates.

PACKAGING

This product is packaged in 10 Kg or 18 Kg UV-block plastic containers.

STORAGE

This product is light sensitive. It should be stored in the original container in a cool and dry place at or below 25 °C (77 °F). It should be kept away from heat and light to obtain the maximum shelf life. Improper storage may result in gelation of the product.

SAFETY AND HANDLING

The un-cured adhesive can be cleaned from apparatus with isopropyl alcohol (IPA), methyl ethyl ketone (MEK), or commercial alcohol based cleaning solution. Use caution in handling this material. Avoid direct skin and eye contact. Use only in well ventilated areas. Use protective clothing, **gloves and safety goggles**. Read Material Safety Data Sheet before handling.