MY POLYMERS
The low refractive index company

DATA SHEET

BIO-133:
Low RI reduced-cytotoxicity, non-fluorescent optical polymer/coating/adhesive

BIO-133 is a reduced-cytotoxicity, non-fluorescent, low refractive index UV curable optical polymer/coating/adhesive. BIO-133 is intended for bio-photonic and biological microscopy/imaging applications. The index of 1.33 matches the index of cells and tissues, and therefore, it minimizes image distortion, and enables a breakthrough in optical Point Spread Function.
Typical applications include various 3-D structures, such as micro-plate arrays (micro-wells), and micro-pillars for imaging of cellular processes.

Properties

	Liquid state
RI liquid at 589 nm	1.329
Density, g/cm^3	1.66
Viscosity, cps @ 25°C	2200
	Cured state
RI cured at 589 nm	1.334
RI cured at 950 nm	1.329
Adhesion to glass, 90° Peel, g/cm	
Elastic modulus, MPa	5
Tensile Strength, MPa	
Elongation at Break, %	60
Hardness, Shore A	70
Volumetric Shrinkage, %	

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 10-30ºC.
3. The coating is supplied in glass bottles. Keep container closed to avoid moisture penetration.
4. The shelf life is 6 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 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.
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