

# MY-142 and MY-142B

## Optical Adhesive

Updated: August 2010



**MY-142 and MY-142B** are low refractive index UV curable adhesives and encapsulants. Both are characterized by a refractive index in the cured state of 1.42 at 589nm.

**MY-142** is a very flexible and soft polymer with good adhesion to glass and other substrates and low shrinkage.

**MY-142B** has weaker adhesion, higher shrinkage but much better toughness and much higher modulus and tensile strength.

### Properties (not to be used as specifications)

	MY-142	MY-142B
<b>n<sup>D</sup> liquid</b>	1.410	1.405
<b>n<sup>D</sup> cured (589 nm)</b>	1.420	1.420
<b>n cured, estimated @ 1μ</b>	1.416	1.416
<b>Density, g/cm<sup>3</sup></b>	1.237	1.374
<b>Viscosity, cps</b>	1050	595
<b>Shrinkage, %</b>	3	5
<b>Peel force 90°, glass, g/cm</b>	95	42
<b>Shore A</b>	70	
<b>Shore D</b>		71
<b>Tensile strength, MPa</b>	3.7	21
<b>Elongation @ break %</b>	100	9.5
<b>Elastic modulus, MPa</b>	5.3	525

The products are supplied pre-filtered to below 0.5 micron particles. They are clear fluids.

### Storage

1. Avoid unnecessary exposure to ambient light.
2. The product should be stored at ambient conditions of 15-30°C. Do not refrigerate.
3. Do not store under nitrogen. Oxygen is an essential inhibitor against premature gelation.

The products are specified to be useful for 12 months if stored properly.

### Application

The adhesives are supplied in dark glass bottles.

To achieve good surface curing, it is recommended to irradiate under nitrogen.

Curing can be achieved by any source of UV at 300-400nm. Typically, a dose of 1000-2000 mJ/cm<sup>2</sup> is necessary.

**Safety:** Although safer than most UV adhesives, these adhesives are chemicals and must be handled by professional workers and after review of the MSDS



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