

Materials for Optical Communications Components

Adhesives, Coatings, Sealants, Potting and Encapsulations Materials

MY Polymers offers a wide range of materials for Optical Communications and networking. We continuously adapt our products to the fast-changing requirements of the Optical Communications industry. Our products can be found in Optical Transceivers, PLC Splitters, V-Groove Arrays, and Integrated Photonic Circuits.



The Dual Cure (UV or Heat or Both) DC Product Line

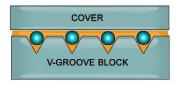
Our Dual Cure (DC) products find a growing number of applications as adhesives, coatings and sealants. All our Dual Cure materials are one component materials. They are cured by either UV radiation, Heat, or a combination of both. This feature enables curing in partially or fully shaded regions of the device. See table on the right:

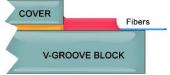
Product	RI @ 950nm	Adhesion g/cm	Elastic Modulus MPa	Viscosity CPS
DC-133	1.330	5	3	2200
DC-136	1.366	180	9	600

Typical applications include

V-Groove Array: Bonding & cladding the fibers inside the V-Grooves, fixing the fibers externally

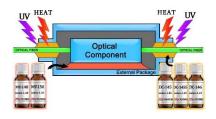
For bonding inside the V-grooves array, if a low index is preferred, customers can use DC-136.For fixing the input/output fibers use the versatile MY-150.





Sealant for an Optical Component Package

The entry points of an optical fiber into the external package of a component can be sealed using one of our Dual Cured products, such as LM-146-NI



Other Products

In addition, MY Polymers has a wide selection of UV cured products, Moisture Cured Coatings and high bond strength low index lamination adhesives.

Some relevant UV cured products include MY-130, MY-133-V2000, RCT-136, MY-136-V2000, MY-136, MY-140, LM-146-NI, MY-150, and many more. UV cured products have a shelf-life advantage over DC products.

The UV cured products are the largest group of products we have, with many different properties, such as refractive index, adhesion, modulus, etc.

Product	RI @ 950nm	Adhesion g/cm	Elastic Mod. MPa	Viscosity CPS
MY-130	1.303	low	<1	120
MY-132-A	1.320	3	2.5	200
MY-133-V2000	1.329	9	5.2	2900
MY-136	1.360	110	20	750
MY-136-V2000	1.363	50	53	1700
MY-140	1.401	270	420	4200
LM-142-NI	1.417	1000	28	3200
LM-142-NI-10	1.407	650	22	5400
LM-146-NI	1.454	200	35	1700
MY-150	1.477	>1100	23	1800
MY-133-MC	1.325	na	na	500
AR-139	1.391	150	Pencil 2H	100
LAM-135	1.350	500	<1	4000

Typical applications

Primary fixing of the fibers onto a V-Groove Array (not inside the grooves):

Use MY-150 for a flexible solution.

Cladding and encapsulation of photonic wire bonds:

Use MY-136-V2000 for cladding and encapsulation of the wire bond in an integrated photonic circuit. The relatively low index of 1.36 will minimize light leakage – especially at the sharp bending locations.

