

Optical Fiber Coatings

MY Polymers Optical Fiber (OF) Coatings are used as a first (primary) coating in specialty optical fibers. Distinguished by their carefully balanced combination of high adhesion to the core, and high modulus, these UV cured coatings are setting new standards.

Our **OF-136** (Index=1.36) is used by the majority of specialty optical fibers manufacturers. This product, like some other members of the OF family, includes a proprietary adhesion promoter that dramatically improves adhesion under wet conditions. Our adhesion promoter was designed to be relatively stable, compared to commercially available adhesion promoters. One major application of OF-136 is for active Erbium Doped fibers used in both Fiber Lasers and in EDFA Optical Amplifiers.



The new OF-136-G2 enables improved performance under hot water immersion, as well as improved thermal endurance.

The disruptive OF-133-V3 (index 1.33) enables a breakthrough Numerical Aperture of 0.6. The high NA can significantly increase the efficiency of fiber lasers and optical amplifiers.

Pioneering companies are already at work, exploring the advantages of this exceptional primary coating. Its close relative, OF-134-V2, couples a low index of 1.34 with a relatively high modulus of 17 MPa.

The higher modulus, compared to OF-133, is intended to enable a smoother transition to the ultra-low index OF coatings.



For mechanically demanding applications, customers choose the high modulus offered by OF-138 (index 1.38), and OF-140-N-3. These tough coatings are preferred for fibers that are subjected to high mechanical stresses.

OF-HC-14 is our only secondary hard coat. The adhesion of OF-HC-14 to our primary low index coatings is about an order of magnitude higher, compared to similar commercially available hard coats.

OF Products Table: The major properties of some notable OF products are summarized in the following table.

	RI at 589 nm	RI at 950 nm	Adhesion gr/cm	Elastic Modulus MPa	Viscosity CPS	Tensile Strength MPa	Elongation At Break %	Hardness Shore	Shelf Life Months
OF-133-V3	1.337	1.333	11	7.3	2400	1.9	39	60A	6
OF-134-V2	1.346	1.341	28	17	2500	3.2	36	86A	6
OF-136	1.369	1.363	64	85	2200	8.0	50	95A	6
OF-136-G2	1.360	1.353	60	90	4200	8.0	30	NA	6
OF-1375-A	1.377	1.372	70	155	3700	8.3	54	95A	6
OF-138	1.384	1.379	120	230	3500	10.0	62	52D	6
OF-140-N3	1.409	1.402	150	290	3700	11	40	NA	12
OF-145-N	1.455	1.448	800	1100	3000	30	13	75D	12
OF-146-N	1.467	1.460	>1500	1600	3800	37	3	80D	12
OF-HC-14 Hard Coat	1.468	1.462	v.high	1400	3700	40	3.5	82D	12



About MY Polymers Ltd.

Distinguished by its total focus on low refractive index materials, **MY Polymers** is a leader in this field.

MY Polymers has been active in the field of Low Refractive Index Optical Coatings Adhesives and Polymers since 2004. The company develops, produces, and sells primary coatings for optical fibers, recoating materials, optical adhesives, bio-photonics materials, anti-reflective coatings, and various other low index polymers, coatings and adhesives.

MY Polymers is ISO certified. We serve the global Photonics and Electronic Display industries, with customers in North America, Asia and Europe.