Welcome to CeramOptec

When your applications demand quality, reliability, and proven performance, CeramOptec delivers with experience and service that is unmatched in the specialty fiber optics industry.
At CeramOptec, we are committed to excellence. By maintaining complete control over the entire production process—from the manufacture of our fiber optic preforms to the finished fiber product—we bring the highest quality control, innovative solutions, and competitive pricing to our customers.

As the only specialty fiber optic manufacturer to make its own preforms, CeramOptec takes pride in its comprehensive production process—every step of the way. Using our patented PCVD process, we produce high-grade specialty fibers with a wide range of profiles and dopands, numerical apertures from 0.12 to 0.66, and high radiation resistance levels. Next, we draw the fiber on our own draw towers and spool it, simultaneously testing for strength and tolerance specifications. Finally, we manufacture and assemble the fiber optic bundles and assemblies, ensuring customers the finest transmission, highest temperature capability, and widest range of numerical apertures.

CeramOptec—The Global Leader in Specialty Fiber Optics

Manufacturing great products alone does not make a leader. At CeramOptec, we have made a sincere commitment to high quality service and support as well as ongoing product and market research. We are dedicated to employing and developing the industry’s most knowledgeable global team of scientists, engineers, and quality control specialists—as well as sales, marketing, and customer service professionals.

CeramOptec has emerged as the industry leader thanks to our extraordinary employees and our extraordinary products—providing unmatched service, innovative solutions, and years of experience.

Breaking Down Barriers Across the Spectrum

Optical fibers are the guiding light of laser and light sensing systems. Without them, we would not be able to manufacture computer chips, monitor aircraft engines, or perform minimally invasive laser surgery.

CeramOptec offers a comprehensive line of high quality fiber assemblies, bundles, and fused-end bundles that exhibit exceptional temperature capabilities, power handling, and transmission values. We manufacture stock and custom silica/silica, plastic-clad silica, hard polymer-clad silica optical fibers; and low loss bundles and assemblies for UV, VIS and IR transmission, medical laser delivery, sensors, plasma fusion, and spectroscopy.
The only specialty fiber optics company to make its own preforms, CeramOptec adheres to the most stringent quality parameters every step of the way—setting the standards for quality, cost, and performance. Our innovative fibers are drawn from the tallest draw tower in North America, then spooled while simultaneously testing for strength and tolerance. By maintaining complete control over the entire production process—from preform manufacture to finished fibers, bundles, and assemblies—we provide superior quality control, custom solutions, and competitive pricing. And with several facilities worldwide, we are able to offer our customers local, prompt, and reliable service.
Many applications, from chemical analysis and remote illumination to laser surgery and photodynamic therapy (PDT) require CeramOptec’s precise fiber optics—which provide improved wavelength accuracy, a wide range of numerical apertures for just the right light, and limitless core/clad relationships.

CeramOptec has spent nearly two decades advancing the field of specialty optical fibers. Our fibers are the guiding light of lasers and are used in spacecraft sensing and controls, particle detection, and nuclear physics.
Our unique, patented manufacturing process allows us to make these products available in a wide variety of diameters and coatings for the broadest range of wavelengths—all assembled to your specifications.

As the manufacturer of the world’s first UV non-solarizing optical fiber, it is CeramOptec’s innovation that sets us apart in the complex technology of optical fibers and allows us to break down the barriers of UV spectroscopy and sensing applications. It also enables us to offer our customers the most comprehensive line of unique, patented products in the industry.

Markets Served by CeramOptec

CeramOptec serves the scientific, medical, and industrial markets with optical fiber, diode and diode-pumped Nd:YAG lasers, and spectroscopic fiber accessories. CeramOptec produces standard and custom silica/silica, plastic-clad silica, and hard polymer-clad silica optical fibers and low loss bundles and assemblies for UV, VIS, and IR transmission, medical laser delivery, sensors, plasma fusion, and spectroscopy.

Most products can be made with high (+1500°C) or low (-190°C) temperature capability and are available in custom lengths. Our new MIR silver halide crystalline fiber is ideal for laser power delivery and remote IR sensing (4 to 16 microns), and our fused silica capillary tubing is perfect for analytical instruments and industrial applications.

Remote spectroscopy and other markets are served with fiber performance from 160 nm to 2.5 microns, -190°C to +1500°C, in vacuum environments (10^-9 torr), and in long fiber lengths. UV, VIS, NIR, and MIR fibers and bundles are manufactured in any length requested. Any and all environments are welcomed, including oil, radiation, monitoring, and outer space. Our fused silica optical fibers are ideal for deep UV, VIS, NIR, and MIR and are available as bare fibers, bundles and cable.

Highlighted Products—CeramOptec Innovation at Its Best

PowerLightGuide® Non-Solarizing Fused End Bundles

For long-term performance, PowerLightGuide all silica fiber optic bundles, fused-end bundles, and assemblies set the standard. Tested for well over 40,000 continuous, unfiltered hours, our PowerLightGuide bundles exhibit level, steady transmission at 95% of the original input!
PowerLightGuide fused-end bundles offer a distinct advantage over liquid light guides because they exhibit exceptional throughput for wavelengths ranging from 160 to 1200 nm—without solarization. Unlike liquid light guides, our new PowerLightGuides are available in unlimited lengths and will not leak or deteriorate over time.

**Optran Ultra™—High NA (0.37, 0.44, and 0.53) Water Free Optical Fiber**

As the innovative leader of the fiber optic industry, CeramOptec is proud to introduce its new line of high NA optical fiber—Optran Ultra. Optran Ultra fibers offer unmatched performance with their 0.37, 0.44, and 0.53 numerical apertures. Ideal for a broad range of applications, from spectroscopy to sensing, CeramOptec’s innovative Optran Ultra fibers exhibit exceptional spectral transmission from 350-2200 nm.

**Quality Certification You Can Trust**

We ensure the highest degree of quality and performance for our customers by remaining committed to our comprehensive manufacturing processes. Our manufacturing facilities follow strict guidelines that allow for the ability to trace from raw materials to fiber production, product assembly, testing, packaging, and sterilization of medical fibers. Our products are stringently tested for optimal bundle transmission, geometrics, NA, and spectral fiber attenuation.

**About CeramOptec**

CeramOptec was founded in 1986 by Dr. Wolfgang Neuberger and today is the global leader in the specialty fiber optic industry. We have established state-of-the-art manufacturing facilities around the globe—each equipped with the latest in fiber and assembly technology. We manufacture the highest quality and widest variety of specialty optical fiber, bundles, and accessories available on the market today in these facilities—with unmatched delivery times for standard and custom orders.

CeramOptec is a subsidiary of biolitec AG, an international leader in innovative pharmaceuticals, advanced medical and industrial lasers, fiber optic laser delivery systems, and medical endoprobes. biolitec AG is a publicly traded corporation listed on the Frankfurt Exchange’s Neuer Markt (symbol: BIB). For additional information about biolitec, please visit www.biolitec.com.
CeramOptec’s patented manufacturing process ensures exceptional temperature capability for heat intensive applications, vibration resistance for optimum performance in oscillating conditions, and the best transmission from the deep UV to the MIR.