



CORNING

Specialty Fiber

Our Versatile Fibers Serve Many Industries

Corning specialty fibers are used in a wide range of applications, from components in the well-established telecommunications market to the fibers required in emerging markets, like medical, lighting, sensing applications, datacoms/cloud and beyond. We can design custom fibers to support entirely new markets and innovations where fibers will be an essential component.

Our fibers are designed and chosen by customers to enable next-gen networks that require higher data rates (100, 200, 400, 800G), increased data transmission (coherent components and other technologies), and increased densification (reduced size and bend insensitive).

Our strategy is to look at fiber — the actual glass core and cladding, and the protective coatings — in terms of a matrix where each or all can be rapidly customized at our customer's direction. We can do this in terms of size, optical properties, temperature/environment resistance, bend insensitivity, operating wavelength, etc.

If you don't see a particular fiber in our catalog that meets your needs, please contact us to discuss your unique requirements.



Titania-Clad Fiber

One of the newest additions to our portfolio, Corning's Titania-Clad fiber, leads the next generation of bend-insensitive fibers. Our highly engineered fiber design enables bending to a 2.5 mm bend radius with low loss. With our customers' needs in mind, a layer of Titania in the cladding ensures mechanical reliability in tight-bend applications and small packaging sizes. This fiber offers world-class durability and fatigue resistance for components such as pigtails, erbium-doped fiber amplifiers (EDFAs), and other wavelength division multiplexing (WDM) components.

Harsh Environment Fiber

Corning High-Temperature fibers are designed for applications requiring improved fatigue resistance, high usable strength, and excellent resistance to higher temperatures and hydrogen permeation. We offer a single-mode or multimode core with a high-temperature acrylate layer. An optional hermetic coating is available for many of the fiber types listed here, delivering significant advantages with respect to mechanical reliability and resistance to hydrogen-induced optical attenuation degradation.

Corning® Erbium-Doped Fiber

Manufactured with our patented outside vapor deposition (OVD) process, Corning® Erbium-Doped specialty fibers set the worldwide standard for uniformity and reliability. In typical high-performance amplifiers built with our Erbium-doped fiber, gain consistency is maximized due to spectral uniformity of the fiber, eliminating the need for frequent adjustments to gain-flattening filter design. Variations in gain spectrum and pump power requirements are greatly reduced, which makes for a more predictable amplifier manufacturing process and translates directly to lower costs for customers. Erbium-doped fiber designs are available for conventional C-band, L-band, and reduced-clad applications.

Polarization Maintaining Fiber

PANDA Polarization Maintaining (PM) fibers are designed with high-performance properties, including excellent birefringence and low attenuation. Corning offers the broadest portfolio of PANDA PM fibers from wavelengths of 400-1550 nm and designs such as high NA and flame-retardant coatings. Our newest PANDA fiber features a reduced cladding with a dual window, 1310 and 1550, operating wavelength.

High-Index Fiber

Corning's suite of High-Index fibers are used across telecommunications, aerospace, and industrial markets in applications such as WDM couplers, splitters, and pump pigtails. The High-Index fibers are manufactured with Corning's patented OVD process, which results in highly consistent glass and excellent reliability. We have designed High-Index fibers for a range of wavelengths from 780 to 1550 nm.

Special Single-Mode Fiber

Corning's suite of special single-mode fibers include:

- Low wavelength RGB400 single-mode fiber for sensors in Red-Green-Blue wavelengths
- Corning® ClearCurve® photonic optical fiber for tight bending applications
- RC single-mode optical fiber, which is an 80 µm clad design for small-form-factor application

Talk to us today about your specialty single-mode and multimode fiber needs!

The Corning logo is displayed in white, uppercase letters on a solid blue rectangular background.

For the full product information sheets or more information, please contact us or see our website:
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