

CORNING

Corning® RC SMF Specialty Optical Fibers



Low-loss fused components for erbium-doped fiber amplifier (EDFA) and small-bend-radius applications

Manufactured with Corning's patented outside vapor deposition (OVD) process, and based on decades of experience in specialty fiber development, Corning® RC SMF specialty fiber sets the industry standard for consistent geometric properties, high mechanical reliability, and efficient splicing.

Applications

- Miniature and small footprint components for data centers/ datacoms and telecom components
- Ultra-compact components requiring small bend radii
- Pigtails in bend-insensitive applications
- Sensors

Features

- Outstanding consistency and uniformity using Corning's patented OVD process
- Dual acrylate coating system provides excellent protection from microend-induced attenuation and superior mechanical robustness
- Ultra-tight specifications
- World-class reliability support for handling and deployment
- Technical support for splicing to 125 μm products
- Ultra-low splice loss to Corning® SMF-28e+® fiber
- 80 μm diameter for miniature packaging
- Low bending loss
- Excellent geometry control
- Improved macrobending performance and space/size reduction for increased bandwidth

Key Optical Specifications

Operating Wavelength (nm)	> 1300
Fiber Cutoff Wavelength (nm)	≤ 1290
Maximum Attenuation (dB/km)	0.7 @ 1310 nm 0.5 @ 1550 nm
Mode-Field Diameter (μm)	9.2 ± 0.3 @ 1310 nm 10.4 ± 0.8 @ 1550 nm

Key Geometric, Mechanical, and Environmental Specifications

Cladding Outside Diameter (μm)	80 ± 1
Coating Outside Diameter (μm)	165 ± 10
Core-to-Cladding Concentricity (μm)	≤ 0.5
Standard Lengths	500 m, 1 km, 2 km, 5 km, 10 km
Proof Test (kpsi)	100 or 200
Operating Temperature (°C)	-60 to +85

Performance Characterizations*

Nominal Delta (%)	0.36
Numerical Aperture	0.12
Refractive Index Value – Core	1.458 @ 850 nm
Core Diameter (μm)	8.2
Dispersion (ps/nm/km)	-0.5 @ 1310 nm 16.2 @ 1550 nm

*Values in this table are nominal or calculated values

Typical Splice	Corning® SMF-28e+®	RC HI 1060	RC PANDA PM 1550	RC HI 1060 FLEX	RC HI 980
Wavelength (nm)	1550	1550	1550	1550	980
RC SMF Fiber (dB)	0.05	0.08	0.09	0.12	0.11

For more information about Corning's leadership in specialty fiber technology, visit our website at corning.com/specialtyfiber. To obtain additional technical information, an engineering sample, or to place an order for this product, please contact us at:

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