

Corning® RC 1300 and RC 1550 Specialty Optical Fibers High Index / Bend Insensitive



*Reduced
cladding fiber
for small size
coils and
assemblies*

Manufactured with Corning's patented Outside Vapor Deposition (OVD) process, Corning® RC 1300 and RC 1550 Specialty Fibers offer world-class durability and reliability with a reduced cladding of 80 μm (compared to the industry standard of 125 μm). The reduced cladding allows extremely tight fiber coiling with low bend loss, enabling a range of system designs not possible with standard specialty fibers.

Applications:

- Devices requiring extremely tight bend radius coils
- Dense wavelength division multiplexing (DWDM) components
- Compact optical circuits
- Sensors

Features:

- Outstanding consistency and uniformity using Corning's patented Outside Vapor Deposition (OVD) process
- Dual acrylate coating system provides excellent protection from microbend-induced attenuation and superior mechanical robustness
- Reduced cladding (80 μm)
- Excellent geometry control
- High core index of refraction
- Efficient coupling

RC 1300

RC 1550

Key Optical Specifications

Operating Wavelength (nm)	> 1280	> 1480
Maximum Attenuation (dB/km)	0.7 @ 1300 nm	0.5 @ 1550 nm
Cutoff Wavelength (nm)	1220 ± 50	1420 ± 50
Mode-field Diameter (μm)	5.5 ± 0.5 @ 1300 nm	6.5 ± 0.5 @ 1550 nm

Key Geometric, Mechanical and Environmental Specifications

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

Performance Characterizations*

Nominal Delta (%)	1.0	
Numerical Aperture	0.20	
Refractive Index Value - Core	1.458 @ 1550 nm	
Bendloss (@ 10 mm O.D.; 1300 nm) (dB/turn)	≤ 0.01	
Bendloss (@ 20 mm O.D.; 1550 nm) (dB/turn)	<< 0.01	
Dispersion (ps/nm/km)	-9 @ 1300 nm	12 @ 1500 nm
Core Diameter (μm)	4.9	5.7

* Values in this table are nominal or calculated values

For more information about Corning's leadership in Specialty Fiber technology visit our website at www.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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