# Corning® HI 1060 FLEX & RC HI 1060 FLEX Specialty Optical Fibers High Index / Bend Insensitive





High performance WDM components and ultra-low bend loss applications

Manufactured with Corning's patented Outside Vapor Deposition (OVD) process, Corning® HI 1060 FLEX Specialty Fiber sets the world-wide standard for uniformity and reliability. Completely re-engineered for fused biconic taper component manufacturing, this specialty fiber is ideal for use in smaller footprint components and EDFAs. Combining ultra-low bending loss, low insertion loss, and excellent spliceability, Corning<sup>®</sup> HI 1060 FLEX Specialty Fiber enables higher yields and performance throughout the value chain.

## **Applications:**

- Pigtails for bend-insensitive applications
- Premium grade WDM couplers for EDFAs
- Tap couplers
- Splitters and combiners
- CATV couplers
- Ultra-compact components requiring small bend radii
- Low loss fused devices for C-Band and L-Band

#### **Features:**

#### HI 1060 FLEX and RC HI 1060 FLEX

- 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
- Ultra-low bending loss
- Low excess loss
- Low splice loss to SMF-28e+® fiber and Corning ER 1550C3
- Excellent geometry control
- RC HI 1060 FLEX offers 80 µm diameter for sub-miniature packaging

# **Key Optical Specifications**

Operating Wavelength (nm)	> 980
Maximum Attenuation (dB/km)	≤ 2.5 @ 980 nm ≤ 1.0 @ 1550 nm
Cutoff Wavelength (nm)	$930 \pm 40 \text{ nm}$
Mode-field Diameter (µm)	$4.0 \pm 0.3$ @ 980 nm $6.3 \pm 0.3$ @ 1550 nm

## **Key Geometric, Mechanical and Environmental Specifications**

Cladding Outside Diameter (µm)	$125 \pm 0.5$	80 ± 1		
Coating Outside Diameter (µm)	$245 \pm 10$	$165 \pm 10$		
Core-to-Cladding Offset (µm)	≤ 0.3	≤ 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 (%)	1.0
Numerical Aperture	0.22
Refractive Index Value – Core	1.472 @ 651 nm
Dispersion (ps/nm/km)	-65 @ 980 nm -50 @ 1060 nm
Bendloss (@ 20 mm O.D., 1550 nm) (dB/turn)	≤ 0.01
Core Diameter (µm)	3.4

<sup>\*</sup> Values in this table are nominal or calculated values

# **Typical Splice**

	HI 1060 FLEX	SMF-28e+°	RC SMF	ER 1550C3	HI 1060	HI 980	PM 980
Wavelength (nm)	1550	1550	1500	1550	980	980	980
HI 1060 FLEX (dB)	0.03	0.07		0.03	0.06	0.04	0.09
RC HI 1060 FLEX (dB)		0.22	0.12	0.08			

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:

**Corning Incorporated** 

Tel: +1-607-974-9974 Fax: +1-607-974-4122

E-mail: specialtyfiber@corning.com

© 2010 Corning Incorporated

