

Parameters of standard Chalcogenide fibers					
Code	CIR8/300	CIR 50/250	CIR 250/300	CIR 340/400	CIR 500/550
Type	Step Index Single-mode	Step Index Few-mode	Step Index Multimode	Step Index Multimode	Step Index Multimode
Core Dia., $\mu\text{m}$	8 $\pm$ 1	50 $\pm$ 3	250 $\pm$ 10	340 $\pm$ 10	500 $\pm$ 10
Cladding Dia., $\mu\text{m}$	300 $\pm$ 10	250 $\pm$ 10	300+10/-15	400+10/-15	550+10/-20
Protective Jacket Dia., $\mu\text{m}$	400 $\pm$ 20	410 $\pm$ 30	400 $\pm$ 30	510 $\pm$ 30	700 $\pm$ 30
NA	0.25 $\pm$ 0.02	0.13 $\pm$ 0.02	0.30 $\pm$ 0.03	0.30 $\pm$ 0.03	0.30 $\pm$ 0.03
Min. bending Radius,mm	60	50	60	80	100

Specifications	
Core/cladding composition	As <sub>2</sub> S <sub>3</sub>
Spectral Range	1.1 – 6.5 $\mu\text{m}$
Core Refractive Index	2.42
Fresnel Reflection Losses	31%
Attenuation at 3 – 4 $\mu\text{m}$ & 4.5 $\mu\text{m}$ – 5 $\mu\text{m}$	0.2 – 0.4 dB/m
Effective Numerical Aperture NA	0.30 +/- 0.05
Glass Transition Temperature, T <sub>g</sub>	185 °C
Operating Temperature	-273°C to +90°C
Core/Clad Diameter (standard)	See table above
Protective Jacket	Fluoro polymer + PVC
Tensile Strength	> 70 MPa
Minimum Bending Radius (fixed)	100x [Fiber Diameter]
Minimum Elastic Bending Radius	200x [Fiber Diameter]