

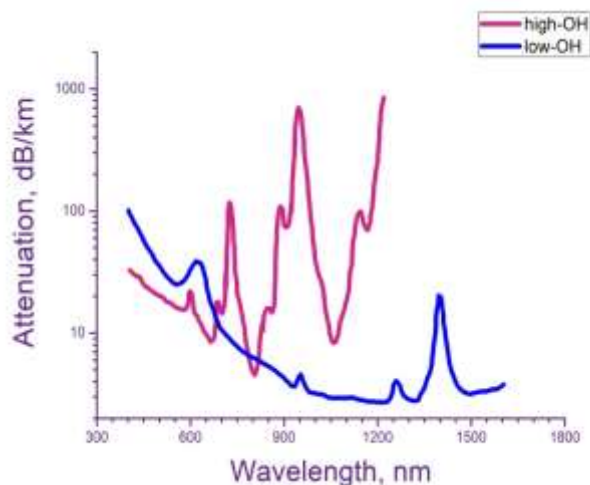
SPECIALTY FIBER COPPER COATED FIBERS

HIGH OH STEP INDEX MULTIMODE SILICA FIBERS

Copper-coated step index multimode optical fibers have significant improvements include increased mechanical strength and greater fatigue resistance compared to non-hermetic and polymer-clad fibers (PCS). Their transmittance covers a spectral range of 250 to 1200 nm, and also remains stable in corrosive chemicals that normally react to silica glass. The working temperature range is from -196C to +600C. Hermetically metal-coated optical fibers are the optimum candidate when used in high vacuum and harsh environmental conditions

FEATURES:

- ❖ Greatly enhanced resistance to high power laser radiation.
- ❖ Higher core-to-clad ratio and enlarged NA optimized for coupling to high-energy lasers.
- ❖ Better fiber cooling due to the heat-conducting metal coating.
- ❖ Excellent mechanical strength compared to polymer coated fibers.
- ❖ Solderable coating allows feeding the fibers into high vacuum systems and provides no outgassing.



FIBER SPECIFICATIONS	OKM-105/125Cu	OKM-110/125Cu	OKM-200/220Cu	OKM-300/330Cu	OKM-400/440Cu	OKM-600/660Cu	OKM-800/880Cu
Core diameter, μm	105 \pm 2	113 \pm 2	200 \pm 2	300 \pm 4	400 \pm 5	600 \pm 8	800 \pm 10
Clad diameter*, μm	125 \pm 2	125 \pm 2	220 \pm 2	330 \pm 4	440 \pm 5	660 \pm 8	880 \pm 10
Coating diameter, μm	160 \pm 10	160 \pm 10	280 \pm 10	420 \pm 10	545 \pm 10	775 \pm 10	980 \pm 10
Attenuation at 800/1300nm [see graph High OH]	The loss spectrum in the long wavelength region (>1 μm) is higher than that of the material			The loss spectrum is close to the material loss spectrum			
Wavelength range, nm [see graph High OH]	250 \div 1100				250 \div 1200		
Fiber type	Multimode						
Index profile	Step						
Coating material	Copper 99,99%						
Core material	Pure syntetic silica (High OH)						
Clad material	Doped silica (F-doped)						
Numerical Aperture (NA)	0.22 \pm 0.02						
Short-term bending radius	60 times the fiber diameters						
Long-term bending radius	120 times the fiber diameters						
Proof test, kpsi	> 100						
Min operating temperature, $^{\circ}\text{C}$	-196						
Max operating temperature (short time < 60s), $^{\circ}\text{C}$	600						
Max operating temperature (long time > 60s), $^{\circ}\text{C}$	< 400						

*The core/clad ratios 1.06/1.1 on the request
Other parameters are available on the request