

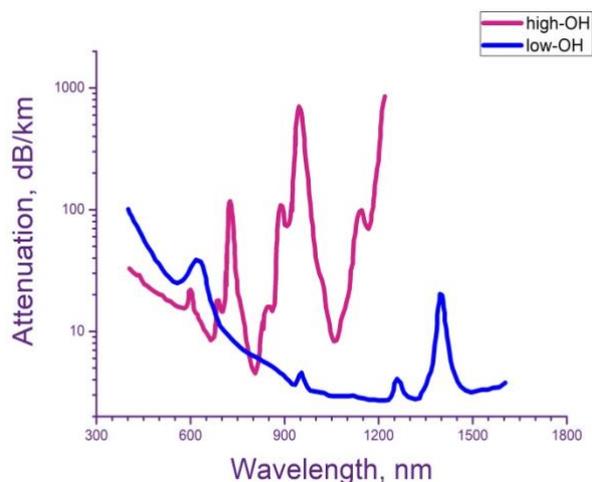
SPECIALTY FIBER COPPER COATED FIBERS

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 -196°C to +600°C. 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 graf 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 graf 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