

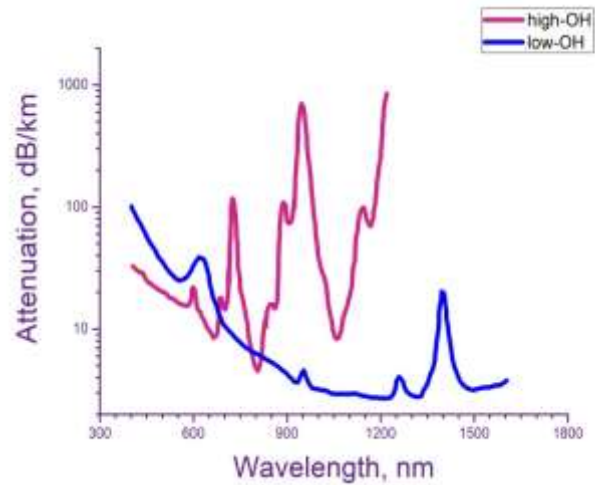
SPECIALTY FIBER COPPER COATED FIBERS

LOW 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 400 to 2200 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	OK-50/125Cu	OK-110/125Cu	OK-200/220Cu	OK-300/330Cu	OK-400/440Cu	OK-600/660Cu	OK-800/880Cu
Core diameter, μm	50 \pm 3	113 \pm 2	200 \pm 2	300 \pm 4	400 \pm 5	600 \pm 8	800 \pm 10
Clad diameter*, μm	125 \pm 3	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 Low OH)	14	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 Low OH)	1000 \div 1600	400 \div 1100	400 \div 1700		400 \div 2200		
Fiber type	Multimode						
Index profile	Step						
Coating material	Copper 99,99%						
Core material	Pure syntetic silica (low OH)						
Clad material	Doped silica (F-doped)						
Numerical Aperture (NA)	0.16 \pm 0.02			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