

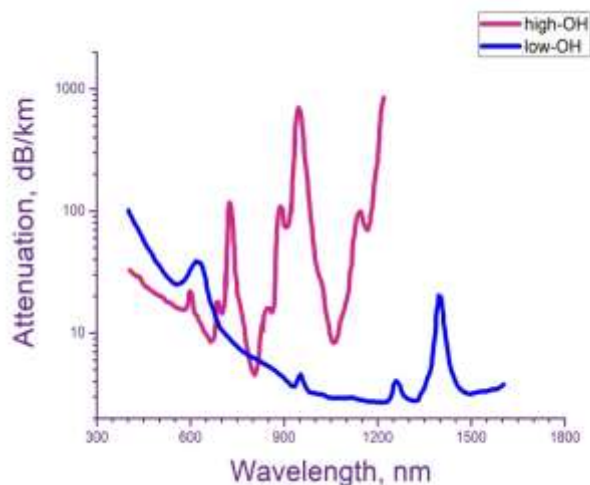
SPECIALTY FIBER COPPER COATED FIBERS

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 ± 3	113 ± 2	200 ± 2	300 ± 4	400 ± 5	600 ± 8	800 ± 10
Clad diameter*, μm	125 ± 3	125 ± 2	220 ± 2	330 ± 4	440 ± 5	660 ± 8	880 ± 10
Coating diameter, μm	160 ± 10	160 ± 10	280 ± 10	420 ± 10	545 ± 10	775 ± 10	980 ± 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 ÷ 1600	400 ÷ 1100	400 ÷ 1700		400 ÷ 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 ± 0.02			0.22 ± 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, °C	-196						
Max operating temperature (short time < 60s), °C	600						
Max operating temperature (long time > 60s), °C	< 400						

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