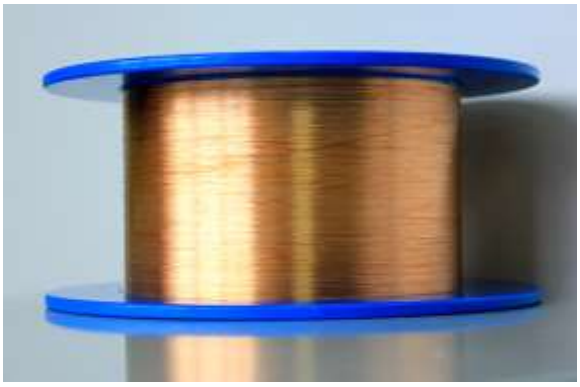
SPECIALTY FIBER COPPER COATED FIBERS

GRADED INDEX
MULTY MODE SILICA FIBERS

Copper-coated gradient index multy mode optical fibers have increased mechanical strength and greater fatigue resistance compared to non-hermetic and polymer-clad fibers (PCS). Their transmittance covers a spectral range of 1000 to 1600 nm, and also remains stable in corrosive chemicals that normally react to silica glass. The 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



FEUTURES:

- Better fiber cooling due to the heat-conducting metal coating.
- Excellent mechanical strength and flexibility compared to polymer coated fibers.
- Capability to feed the fibers into a high vacuum: the metal coating can be soldered and will not outgas.

FIBER SPECIFICATIONS	OK-50/125Cu-Gr	OK-50/200Cu-Gr	OK-100/140Cu-Gr
Core diameter, μm	50 ± 2.5	50 ± 2.5	100 ± 2
Clad diameter, μm	125 ± 3	200 ± 3	140 ± 2
Coating diameter, μm	160 ± 10	250 ± 10	~ 210 ± 10
Cladding offset, %		‹ 2	
Coating offset, %		‹ 5	
Attenuation at 1550nm	~ 13	~ 5	~ 15
Wavelength range, nm		1000 ÷ 1600	
Coating material		Copper 99,99%	
Core material		Silica Ge-doped	
Clad material		Pure silica	
Additional inner layer		carbon	
Numerical Aperture (NA)		0.2 ± 0.02	
Fiber type		Multimode	
Index profile		Gradient	
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	

Other parameters are available on the request