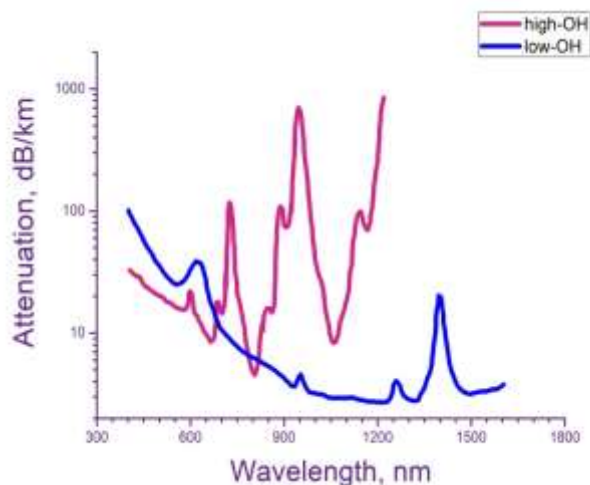


# SPECIALTY FIBER ALUMINUM COATED FIBERS

## HIGH OH STEP INDEX MULTIMODE SILICA FIBERS

### 1.1 CORE/CLAD RATIO

Aluminum-coated step index multimode optical fibers have all the benefits of silica-silica fibers. Additional 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 temperature range is from -196C to +400C .



#### 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 and flexibility compared to polymer coated fibers.
- ❖ The metal coating can be soldered and will not outgas.

FIBER SPECIFICATIONS	OKM-100/110AL	OKM-150/165AL	OKM-200/220AL	OKM-300/330AL	OKM-400/440AL	OKM-600/660AL	OKM-800/880AL	OKM-1000/1100AL
Core diameter, $\mu\text{m}$	100 $\pm$ 2	150 $\pm$ 3	200 $\pm$ 4	300 $\pm$ 6	400 $\pm$ 8	600 $\pm$ 12	800 $\pm$ 15	1000 $\pm$ 20
Clad diameter*, $\mu\text{m}$	110 $\pm$ 3	165 $\pm$ 4	220 $\pm$ 5	330 $\pm$ 10	440 $\pm$ 12	660 $\pm$ 15	880 $\pm$ 20	1100 $\pm$ 40
Coating diameter, $\mu\text{m}$	150 $\pm$ 8	210 $\pm$ 12	300 $\pm$ 15	450 $\pm$ 25	565 $\pm$ 25	860 $\pm$ 30	1110 $\pm$ 40	1410 $\pm$ 60
Attenuation at 800/1300nm (see graph High OH)	The loss spectrum in the long wavelength region (>1 $\mu\text{m}$ ) 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	Aluminium							
Core material	Pure syntetic silica (High OH)							
Clad material	Doped silica							
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, $^{\circ}\text{C}$	400							

Other parameters are available on the request