

SPECIALTY FIBER ALUMINUM COATED FIBERS

LOW OH
STEP INDEX
MULTIMODE SILICA FIBERS

Kokyo

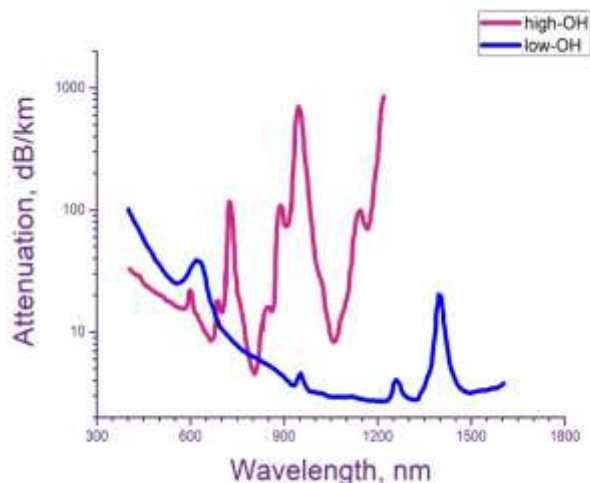
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1.1 CORE/CLAD RATIO

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 400 to 2200 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	OK-100/110AL	OK-150/165AL	OK-200/220AL	OK-300/330AL	OK-400/440AL	OK-600/660AL	OK-800/880AL	OK-1000/1100AL
Core diameter, μm	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*, μm	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, μm	140 \pm 8 (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 Low 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 graph Low OH)	400 \div 1100		400 \div 1700		400 \div 2200			
Fiber type	Multimode							
Index profile	Step							
Coating material	Aluminium							
Core material	Pure syntetic silica (low 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