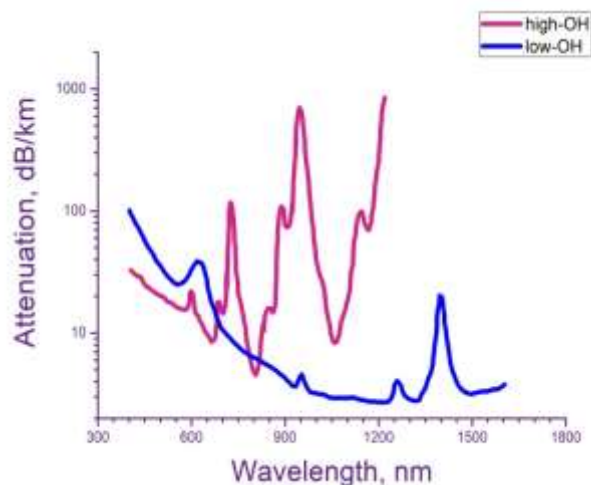


# SPECIALTY FIBER ALUMINUM COATED FIBERS

## HIGH OH STEP INDEX MULTIMODE SILICA FIBERS

### 1.06 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-200/212AL  | OKM-400/424AL | OKM-600/636AL  | OKM-800/848AL | OKM-1000/1060AL |
|---|--|---------------|--|---------------|-----------------|
| Core diameter, $\mu\text{m}$                  | $200 \pm 4$  | $400 \pm 8$   | $600 \pm 12$   | $800 \pm 15$  | $1000 \pm 20$   |
| Clad diameter*, $\mu\text{m}$                 | $212 \pm 5$  | $424 \pm 12$  | $636 \pm 15$   | $848 \pm 20$  | $1060 \pm 40$   |
| Coating diameter, $\mu\text{m}$               | $260 \pm 15$   | $530 \pm 25$  | $830 \pm 30$   | $1060 \pm 40$ | $1350 \pm 60$   |
| 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