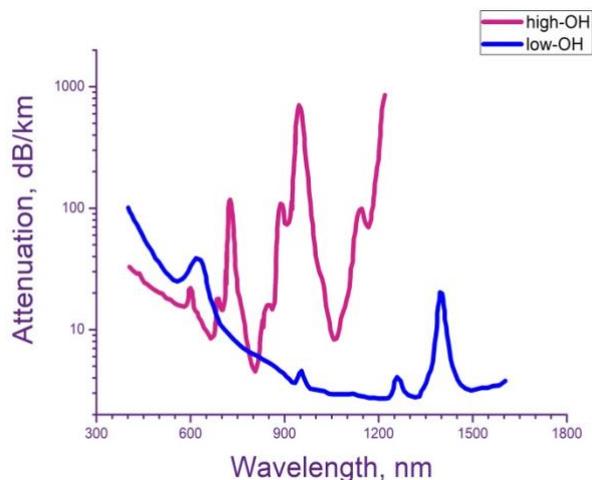


SPECIALTY FIBER ALUMINUM COATED FIBERS

LOW 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 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 ± 2 | 150 ± 3 | 200 ± 4 | 300 ± 6 | 400 ± 8 | 600 ± 12 | 800 ± 15 | 1000 ± 20 |
| Clad diameter*, μm | 110 ± 3 | 165 ± 4 | 220 ± 5 | 330 ± 10 | 440 ± 12 | 660 ± 15 | 880 ± 20 | 1100 ± 40 |
| Coating diameter, μm | 140 ± 8 (150 ± 8) | 210 ± 12 | 300 ± 15 | 450 ± 25 | 565 ± 25 | 860 ± 30 | 1110 ± 40 | 1410 ± 60 |
| Attenuation at 800/1300nm (see graph Low 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 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 ± 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