

LMA-10

Endlessly single-mode 10 μm core fiber



- Handles high power levels without nonlinearities
- Endlessly single-mode
- Pure silica fiber
- Easy alignment

This single-mode fiber is optimized to exhibit low loss across the widest possible wavelength region from 400 nm to above 2000 nm while keeping an almost constant mode field diameter. The fiber is endlessly single-mode (i.e. it has no higher order mode cut-off) and, therefore, delivers pristine mode quality at all wavelengths.

The LMA-10 has a standard 125 μm outer diameter and is compatible with all common fiber tools.

The fiber is available with hermetically sealed ends and FC/PC connectors. For a connectorized fiber, we can customize the amount of fiber end beam expansion. This product is also available in a polarization-maintaining version as the LMA-PM-10 and in an UV version as the LMA-10-UV.

Applications

- Single-mode high power delivery
- Mode filtering
- Single-mode pigtailed

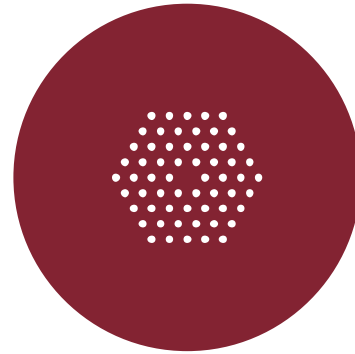
Physical properties

Material	Pure Silica
Cladding diameter	125 \pm 2 μm
Coating diameter	240 \pm 5 μm
Coating material	Acrylate
Core size diameter	10 \pm 1 μm
Coating concentricity	< 3 μm

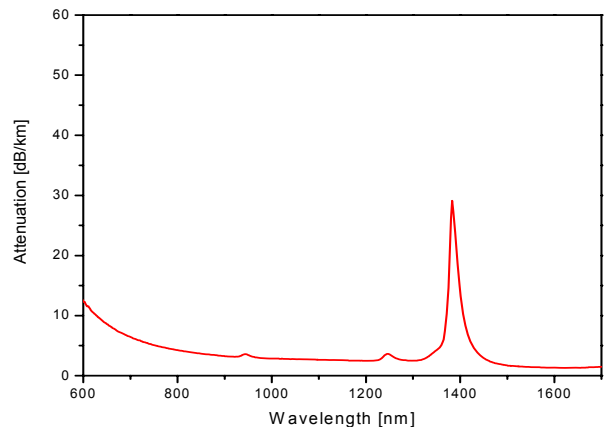
Optical properties

Zero dispersion wavelength	1195 \pm 15 nm
Attenuation @ 700-1000 nm	< 7 dB/km
Attenuation @ 1550 nm	< 2 dB/km
Cut-off wavelength	None
Mode field diam. @ 635-980 nm	7.5 \pm 1.0 μm
Numerical aperture @ 635 nm	0.08 \pm 0.01
Numerical aperture @ 780 nm	0.09 \pm 0.01
Numerical aperture @ 980 nm	0.10 \pm 0.01
Splice loss @ 1550 nm*	< 0.8 dB

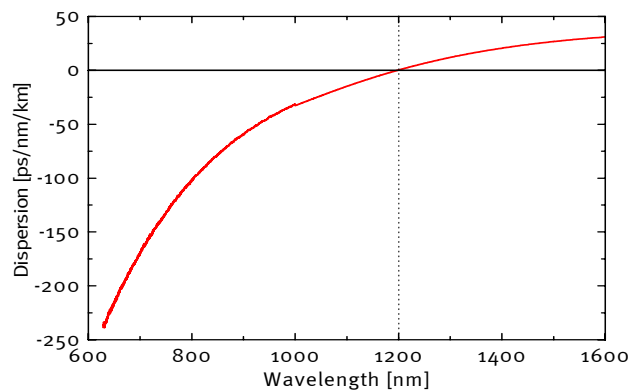
* Spliced to standard single-mode fiber



Typical measured spectral attenuation



Typical measured dispersion



LMA-10-071010