20/130 Precision Matched Active LMA Double Clad Fiber

Coherent's matched series of Large Mode Area (LMA) double clad fibers are ideal for high power monolithic fiber lasers and amplifiers. Featuring a matching set of LMA fibers, this series of fibers ensure splice compatibility across the entire chain of 20/130 fiber components required to make monolithic fiber lasers. This matched fiber series is based on a 20 micron diameter core and 130 micron diameter clad size with a low NA (0.08) core and consists of Yb-doped fiber and passive beam delivery fibers all made to highest tolerances in the industry. All fibers utilize the latest glass composition and NuCOAT™ coating technology to ensure high slope efficiency, extended operating life and excellent beam quality at the high power levels demanded by today's industrial fiber laser applications.

Typical Applications

- Pulsed fiber lasers and amplifiers
- Material processing
- LIDAR
- Non-linear optics / frequency doubling

Features & Benefits

- Matched fiber series – ensure splice compatibility across the 20/130 matched series of fibers
- NuCOAT™ fluoroacrylate coating — Greater fiber durability in extreme environmental operating & storage conditions
- State of the art Yb-doped glass — Useful for generating high CW powers
- All fiber proof tested to > 100 kpsi — Critical for ensuring long term reliability when coiling

Optical Specifications

LMA-YDF-20/130-M

Operating Wavelength	1060 – 1115 nm
Core NA	0.080 ± 0.005
First Cladding NA (5%)	≥ 0.46
Cladding Attenuation	≤ 15.0 dB/km @ 1095 nm
Cladding Absorption	2.80 ± 0.30 dB/m at 915 nm

Geometrical & Mechanical Specifications

Cladding Diameter (flat-to-flat)	130.0 ± 1.5 µm
Core Diameter	20.0 ± 1.5 µm
Coating Diameter	245.0 ± 10.0 µm
Coating Concentricity	< 5.0 µm
Core/Clad Offset	≤ 0.70 µm
Prooftest Level	≥ 100 kpsi (0.7 GN/m²)

The passive version is also available - see LMA GDF-20/130-M

RoHS compliant

Custom developed fiber (FUD) specifications are subject to change without notice. Other configurations such as alternative form factors, optimized cut-off and UV cured color coating may be available. Let us know how Coherent can assist with your requirements.