



NuUF Matched Passive Fibers

NuUF Polarization Maintaining, Large Mode Area (PLMA) Germanium-doped (GDF) matched passive fibers feature tailored mode field matching to ensure the highest coupling efficiency with NuUF Ytterbium-doped (YDF) active fibers. NuUF matched passive fibers maximize slope efficiency and beam quality and eliminate coupling to higher order modes (HOMs).

Typical Applications

- Ultrafast Fiber Lasers for Material Processing
 - Chirped Pulse Amplification
 - Second Harmonic Generation / Frequency Doubling
 - Single Frequency & Narrow Linewidth Amplifiers

Features & Benefits

- Matched fibers offer tailored mode field matching to ensure the highest coupling efficiency between the active and passive fibers
- Maximizes slope efficiency and beam quality
- Eliminates coupling to HOMs

Optical Specifications

Operating Wavelength	1015 - 1115 nm
Core NA	0.070 ± 0.005
First Cladding NA (5%)	≥ 0.46
Core Attenuation	≤ 25 dB/km at 1200 nm
Cladding Attenuation	≤ 15 dB/km at 1095 nm
Mode Field Diameter	14 ± 1 μm
Birefringence	nominal 2 x 10 ⁻⁴

PLMA-GDF-14/125-UF

PLMA-GDF-25/250-UF

PLMA-GDF-30/250-UF

Operating Wavelength	1015 - 1115 nm
Core NA	0.070 ± 0.005
First Cladding NA (5%)	≥ 0.46
Core Attenuation	≤ 25 dB/km at 1200 nm
Cladding Attenuation	≤ 15 dB/km at 1095 nm
Mode Field Diameter	22 ± 1.5 μm
Birefringence	nominal 2 x 10 ⁻⁴

Operating Wavelength	1015 - 1115 nm
Core NA	0.070 ± 0.005
First Cladding NA (5%)	≥ 0.46
Core Attenuation	≤ 25 dB/km at 1200 nm
Cladding Attenuation	≤ 15 dB/km at 1095 nm
Mode Field Diameter	26 ± 2 μm
Birefringence	nominal 2 x 10 ⁻⁴

Geometrical & Mechanical Specifications

Cladding Diameter	125 ± 1 μm
Core Diameter (Nominal)	14 μm
Coating Diameter	245 ± 10 μm
Core/Clad Offset	≤ 1 μm
Coating Material	Low Index polymer NuCoat-FA-HP
Proof Test Level	≥ 100 kpsi (0.7 GN/m ²)

Cladding Diameter	247 ± 5 μm
Core Diameter (Nominal)	25 μm
Coating Diameter	395 ± 15 μm
Core/Clad Offset	≤ 2 μm
Coating Material	Low Index polymer NuCoat-FA-HP
Proof Test Level	≥ 100 kpsi (0.7 GN/m ²)

Cladding Diameter	247 ± 5 μm
Core Diameter (Nominal)	30 μm
Coating Diameter	395 ± 15 μm
Core/Clad Offset	≤ 2 μm
Coating Material	Low Index polymer NuCoat-FA-HP
Proof Test Level	≥ 100 kpsi (0.7 GN/m ²)

Matched Active Fiber

PLMA-YDF-14/125-UF

PLMA-YDF-25/250-UF

PLMA-YDF-30/250-UF

