

12/130 Erbium/Ytterbium-Doped Multimode Double Clad Fibers



Coherent's proprietary rare earth doping technology is used to deliver Er:Yb co-doped fibers with industry leading performance and reliability. These fibers demonstrate high pump conversion efficiency and high power operation without rollover due to 1 μm ASE, enabled by the double clad fiber design. The large core of the fiber allows for shorter fiber lengths in high power amplifiers to reduce the impact of non-linear effects.

Typical Applications

- LIDAR
- Eye-safe lasers and amplifiers
- High power pulsed fiber lasers and amplifiers

Features & Benefits

- NuCOAT™ fluoroacrylate coating — Greater fiber durability in extreme environmental operating & storage conditions
- Large core—Enables shorter fiber length for high power pulsed amplifiers
- Double clad design — High power performance and high power conversion efficiency
- All fiber proof tested to > 100 kpsi — Critical for ensuring long term reliability when coiling

Optical Specifications

Operating Wavelength
Core NA
First Cladding NA (5%)
Cladding Attenuation
Normalized Cross Talk

MM-EYDF-12/130-HE

1530 – 1625 nm
0.200
 ≥ 0.46
 $\leq 30.0 \text{ dB/km @ } 1095 \text{ nm}$
N/A

PM-EYDF-12/130-HE

1530 – 1625 nm
0.200
 ≥ 0.46
 $\leq 30.0 \text{ dB/km @ } 1095 \text{ nm}$
 $\leq -25.0 \text{ dB at } 10 \text{ m @ } 1300 \text{ nm}$

Cladding Absorption
Core Absorption

$3.10 \pm 0.50 \text{ dB/m at } 915 \text{ nm}$
 $70.0 \pm 15.0 \text{ dB/m near } 1530 \text{ nm}$
 $3.30 \pm 0.50 \text{ dB/m at } 915 \text{ nm}$
 $75.0 \pm 15.0 \text{ dB/m near } 1530 \text{ nm}$

Geometrical & Mechanical Specifications

Cladding Diameter
Cladding Diameter (flat-to-flat)
Core Diameter
Coating Diameter
Coating Material
Proof test Level

N/A
 $130.0 \pm 3.0 \mu\text{m}$
 $12.0 \pm 1.5 \mu\text{m}$
 $215.0 \pm 5.0 \mu\text{m}$
Low Index Acrylate
 $\geq 100 \text{ kpsi (} 0.7 \text{ GN/m}^2\text{)}$
 $130.0 \pm 2.0 \mu\text{m}$
N/A
 $12.0 \pm 1.5 \mu\text{m}$
 $215.0 \pm 5.0 \mu\text{m}$
Low Index Acrylate
 $\geq 100 \text{ kpsi (} 0.7 \text{ GN/m}^2\text{)}$



The passive version of each fiber is also available.

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www.coherent.com ; www.shop.coherent.com • Coherent products are manufactured under an ISO 9001:2008 certified quality management system.



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.

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