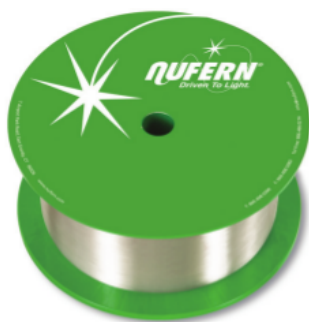


# 30/400 Ytterbium-Doped LMA Double Clad Fibers



Nufern's 30/400 Ytterbium-doped double clad fiber is designed to combine the features of large 30  $\mu\text{m}$  core diameter for generating high pulse energy together with a large 400  $\mu\text{m}$  cladding optimized for high average powers, while still delivering good beam quality through the adoption of LMA fiber design. Available with latest generation of glass technology, the Gen. VIII 30/400-YDF fiber is available in two versions —standard and PANDA-style PM.

## Typical Applications

- Marking
- Welding
- Cutting

## Features & Benefits

- NuCOAT™ fluoroacrylate coating — Greater fiber durability in extreme environmental operating & storage conditions
- LMA core design — Operates at highest CW powers possible and delivers good beam quality
- “Few” moded core design — Easy to maintain single mode LP01 beam through fiber & components
- PANDA-style stress structure for increased birefringence — Superior optical performance and uniformity
- 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  
Cladding Absorption  
  
Birefringence

### PLMA-YDF-30/400-VIII

1060 – 1115 nm  
0.060  $\pm$  0.010  
 $\geq$  0.46  
 $\leq$  15.0 dB/km @ 1095 nm  
0.90  $\pm$  0.10 dB/m at 915 nm  
2.70 dB/m near 975 nm  
nominal  $3 \times 10^{-4}$

### LMA-YDF-30/400-VIII

1060 – 1115 nm  
0.060  $\pm$  0.010  
 $\geq$  0.46  
 $\leq$  15.0 dB/km @ 1095 nm  
0.65  $\pm$  0.10 dB/m at 915 nm  
2.00 dB/m near 975 nm  
N/A

## Geometrical & Mechanical Specifications

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

400.0  $\pm$  15.0  $\mu\text{m}$   
N/A  
30.0  $\pm$  3.0  $\mu\text{m}$   
550.0  $\pm$  20.0  $\mu\text{m}$   
Low Index Polymer  
 $\geq$  100 kpsi (0.7 GN/m<sup>2</sup>)

N/A  
400.0  $\pm$  15.0  $\mu\text{m}$   
30.0  $\pm$  3.0  $\mu\text{m}$   
500.0  $\pm$  20.0  $\mu\text{m}$   
Low Index Polymer  
 $\geq$  100 kpsi (0.7 GN/m<sup>2</sup>)

The passive version of each fiber is also available - see PLMA-GDF-30/400 and LMA-GDF-30/400



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Nufern products are manufactured under an ISO 9001:2008 certified quality management system.

Standard specifications and design parameters are listed above. 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 Nufern can assist with your requirements.

