# CorActive Active Single Clad Fibers For Low-Power/High-Efficiency Lasers and amplifiers

CorActive offers one of the most extensive selection of active single clad fibers on the market. CorActive highly efficient specialty optical fibers are specifically designed to meet the needs of low-power laser and amplifier applications where high core absorption and high efficiency are required. CorActive offers several models of rare-earth doped single-clad fibers (PM and non-PM) in different optical and geometrical configurations.

## **ADVANTAGES**

- Extensive product selection to suit most fiber laser and amplifier applications
- High absorption for reduced fiber length and non-linear effects
- High QCE values allows lower pump power requirements
- Custom products available upon request

#### **APPLICATIONS**

- Low-Power Lasers and Amplifiers
- Pre-amps/Seed Lasers
- Ultrafast Lasers
- Military
- Scientific/Research

## **SPECIFICATIONS**

Material Specification	
Core Material	Doped Silica Glass
Clad Material	Silica Glass
Coating Material	Acrylate
Geometrical and Mechanical Specifications	
Coating Diameter	$245 \pm 15^{1}$
Core/clad Concentricity Error (µm)	< 1
Proof Test Level (kpsi)	$100^{2}$

<sup>&</sup>lt;sup>2</sup> Unless otherwise specified. Consult product datasheet to verify exact proof test level of specific model



<sup>&</sup>lt;sup>1</sup> Unless otherwise specified. Consult product datasheet to verify exact coating dimensions of specific model

# STANDARD MODELS

Ytterbium (YB) Doped Single Clad Fibers									
Model	Core Dlameter (µm)	Clad Dlameter (µm)	MFD @ 1060nm (µm)	Core NA	Core Absorption @ 915nm (dB/m)	Birefringence	Note		
YB 118	N/A	125 ± 1	4.0 ± 1.0	$0.22 \pm 0.02$	80 ± 15	N/A	Photosensitive (high Ge content)		
YB 401	N/A	125 ± 1	6.0 ± 1.0	0.14 ± 0.02	140 ± 25	N/A	Matched to HI 1060, Photodarkening-resistant Matched PM Version: YB 401-PM		
YB 198	N/A	125 ± 1	$4.0 \pm 1.0$	$0.22 \pm 0.02$	$275 \pm 50$	N/A			
YB 406	N/A	125 ± 1	$5.0 \pm 1.0$	$0.16 \pm 0.02$	600 ± 100	N/A	Photodarkening-resistant		
YB 100	N/A	125 ± 2	$5.0 \pm 1.0$	$0.16 \pm 0.02$	10 ± 2	≥ 2.0E-04	PM		
YB 401-PM	N/A	125 ± 1	$6.0 \pm 1.0$	$0.14 \pm 0.02$	140 ± 25	> 3.0E-04	Photodarkening-resistant, Matched Non-PM Version: YB 401		

Erbium (ER) and Erbium/Ytterbium (EY) Doped Single Clad Fibers								
Model	Core Diameter (µm)	Clad Diameter (µm)	MFD @ 1550nm (µm)	Core NA	Core Absorption (dB/m)	Birefringence	Note	
ER12-6	N/A	$125 \pm 0.5$	$6.5 \pm 0.5$	0.22	12 ± 2 @1530nm	N/A		
ER35-7-PM	N/A	$125 \pm 2$	$6.5\pm0.5$	0.22	35 ± 5 @1530nm	≥ 1.4E-04		
EY 305	N/A	125 ± 1	$7.0 \pm 1.0$	0.18	120 ± 20 @915nm	N/A	Photosensitive, Confined <sup>1</sup>	

Thulium (TM) D	oped Single Clad I	Fibers					
Model	Core Diameter (µm)	Clad Dlameter (µm)	MFD (µm)	Core NA	Core Absorption @ 790nm (dB/m)	Birefringence 1	Note
SCF-TM-8/125	8.0 ± 1.0	125 ± 1	N/A	$0.17 \pm 0.01$	13 ± 2 @1567nm	N/A	

Neodyme (ND) Doped Single Clad Fibers								
Model	Core Diameter (µm)	Clad Dlameter (µm)	MFD (µm)	Core NA	Core Absorption near 805nm (dB/m)	Birefringence	Note	
ND 103	$5.0 \pm 0.5$	125 ± 1	N/A	$0.14 \pm 0.02$	> 35	N/A		
ND 103-PM	$5.0 \pm 1.0$	$125 \pm 2$	N/A	$0.12 \pm 0.02$	> 40	≥ 2.0E-04		

Thulium/Holmium (TH) Doped Single Clad Fibers							
Model	Core Diameter (µm)	Clad Dlameter (µm)	MFD	Core NA	Core Absorption near 790nm (dB/m)	Birefringence Note	
TH 512	$6.0 \pm 1.0$	125 ± 2	N/A	$0.12 \pm 0.01$	> 120	N/A	



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