

# CorActive Active Double Clad Fibers For High-Power Lasers and Amplifiers

CorActive offers one of the most extensive selection of active double clad fibers on the market. CorActive highly efficient specialty optical fibers are specifically designed to meet the needs of the high-power laser and amplifier market. CorActive offers several model of Yb, Er/Yb, and Tm-doped double 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

- Lasers for Materials Processing
- High-Power Lasers and Amplifiers
- Medical
- Military
- Scientific/Research

## SPECIFICATIONS

### Optical Specifications

Clad Numerical Aperture	> 0.45
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### Material Specifications

Core Material	Doped Silica Glass
Inner Clad Material	Silica Glass
Outer Clad Material	CorACLAD Fluoroacrylate <sup>1</sup>
Coating Material	Acrylate

### Geometrical and Mechanical Specifications

Clad Geometry	Octagonal
Core/Clad Concentricity Error ( $\mu\text{m}$ )	< 1 <sup>1</sup>
Proof Test Level (kpsi)	100 <sup>1</sup>

<sup>1</sup> Unless otherwise specified. Consult product datasheet to verify specifications of specific model

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**CorActive**  
Specialty Optical Fiber Manufacturer

## STANDARD MODELS

### Ytterbium (YB) Doped Double Clad Fibers

Model	Core Diameter/ MFD ( $\mu\text{m}$ )	Clad Diameter ( $\mu\text{m}$ )	Core NA	Clad Absorption @ 915nm (dB/m)	Birefringence	Matched Passive Double Clad Fiber	Matched Passive Single Clad Fiber
DCF-YB-6/128S	$6.0 \pm 1.0$	$128 \pm 3$	0.12	$0.55 \pm 0.10$	N/A	DCF-UN-6/125-14	HI 1060
DCF-YB-6/128S-PM	$6.0 \pm 1.0$	$128 \pm 3$	$0.12 \pm 0.01$	$0.60 \pm 0.15$	$\geq 2.2\text{E-}04$	DCF-UN-6/125-14-PM	PM 980
DCF-YB-7/128-FHA	$7.0 \pm 1.0$	$128 \pm 3$	$0.19 \pm 0.02$	$1.3 \pm 0.3$	N/A	DCF-UN-6/125-14	HI 1060
DCF-YB-10/128E*	$10.0 \pm 1.0$	$128 \pm 3$	$0.08 \pm 0.005$	$1.10 \pm 0.15$	N/A	DCF-UN-10/125-08	SCF-UN-10/125-08
DCF-YB-12/125-PM	$12.0 \pm 1.0$	$125 \pm 3$	$0.10 \pm 0.02$	$3.0 \pm 0.6$	$\geq 2.0\text{E-}04$	DCF-UN-10/125-08-PM	
DCF-YB-20/128E	$20.0 \pm 1.0$	$128 \pm 3$	$0.08 \pm 0.005$	$3.0 \pm 0.3$	N/A	DCF-UN-20/125-08	SCF-UN-20/125-08
DCF-YB-20/128P-FA	$20.0 \pm 2.0$	$128 \pm 3$	$0.11 \pm 0.02$	$9.0 \pm 2.0$	N/A	DCF-UN-20/125-100	SCF-UN-20/125-100
DCF-YB-25/250E*	$25.0 \pm 2.0$	$250 \pm 10$	$0.07 \pm 0.005$	$1.6 \pm 0.2$	N/A	DCF-UN-25/250-08	SCF-UN-25/250-08
DCF-YB-30/250E*	$30.0 \pm 2.0$	$250 \pm 10$	$0.07 \pm 0.005$	$2.0 \pm 0.2$	N/A	DCF-UN-30/250-070	SCF-UN-30/250-070

### Erbium (ER) and Erbium/Ytterbium (EY) Doped Double Clad Fibers

Model	Core Diameter/ MFD ( $\mu\text{m}$ )	Clad Diameter ( $\mu\text{m}$ )	Core NA	Clad Absorption (dB/m)	Birefringence	Matched Passive Double Clad Fiber	Matched Passive Single Clad Fiber
DCF-EY-6/128	$6.5 \pm 0.8$	$128 \pm 3$	0.20	$0.90 \pm 0.15$ (@915nm)	N/A	DCF-UN-8/125-14	SCF-UN-8/125-14
DCF-EY-6/105/125	$6.4 \pm 0.8$	105	0.20	$1.2 \pm 0.2$ (@915nm)	N/A	DCF-UN-8/105/125-14	SCF-UN-8/125-14
DCF-EY-10/128	$10.0 \pm 1.0$	$128 \pm 3$	$0.20 \pm 0.02$	$2.0 \pm 0.5$ (@915nm)	N/A	DCF-UN-8/125-14	SCF-UN-8/125-14
DCF-EY-10/128-PM	$10.0 \pm 2.0$	$128 \pm 3$	$0.20 \pm 0.02$	$2.0 \pm 0.5$ (@915nm)	$\geq 1.4\text{E-}04$	DCF-UN-8/125-14-PM	
DCF-EY-12/130	$12.0 \pm 1.0$	$130 \pm 3$	$0.20 \pm 0.02$	$2.8 \pm 0.9$ (@915nm)	N/A	DCF-UN-8/125-14	SCF-UN-8/125-14
DCF-EY-17/200	$17.0 \pm 2.0$	$200 \pm 10$	$0.19 \pm 0.02$	$2.5 \pm 1.0$ (@915nm)	N/A	DCF-UN-17/200-18	SCF-UN-17/200-18
DCF-EY-23/210	$23.5 \pm 2.0$	$210 \pm 10$	$0.21 \pm 0.02$	$3.7 \pm 1.0$ (@915nm)	N/A	DCF-UN-17/200-18	SCF-UN-17/200-18
DCF-EY-28/250	$27.5 \pm 2.5$	$250 \pm 15$	$0.21 \pm 0.02$	$3.7 \pm 1.0$ (@915nm)	N/A		

### Thulium (TM) Doped Double Clad Fibers

Model	Core Diameter ( $\mu\text{m}$ )	Clad Diameter ( $\mu\text{m}$ )	Core NA	Clad Absorption @ 790 nm (dB/m)	Birefringence	Matched Passive Double Clad Fiber	Matched Passive Single Clad Fiber
DCF-TM-10/128	$10.0 \pm 1.0$	$128 \pm 3$	$0.22 \pm 0.02$	$4.0 \pm 0.6$	N/A	DCF-UN-8/125-18	SCF-UN-8/125-18
DCF-TM-12/128P	$12.0 \pm 1.0$	$128 \pm 3$	$0.13 \pm 0.01$	$22 \pm 3$	N/A	DCF-UN-8/125-14	SCF-UN-8/125-14
DCF-TM-22/400P	$22.0 \pm 2.0$	$400 \pm 10$	$0.10 \pm 0.01$	$3.0 \pm 0.3$	N/A	DCF-UN-16/400-10	SCF-UN-16/400-10

\*Coming Soon. Specifications are subject to change.

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