

# CorActive Active Fibers For High-Power Lasers and Amplifiers

CorActive offers one of the most extensive selection of active 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, Er, and Tm-doped single clad or double clad fibers (PM and non-PM) in different optical and geometrical configurations. Other dopants such as Neodymium are also available.

## 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
- Scientific/Research

## PRODUCTS

### YB FIBERS

Ytterbium doped fibers are used for operation around 1 micron. CorActive offers a full range of Yb doped fibers for many industrial, scientific and medical applications.

### EY FIBERS

Ytterbium sensitized Erbium co-doped fibers are used for operation around 1.5 micron for application such as eye-safe fiber lasers or high-power EDFA amplifiers.

### ER FIBERS

Erbium doped fibers are used for operation around 1.5 micron. Erbium fibers are mainly used to build telecom EDFA amplifiers. Erbium doped fibers may also be used for "eye-safe" fiber laser applications.

### TM FIBERS

Thulium doped fibers are used for operation around 2 microns. Thulium fibers are used for "eye-safe" fiber laser applications.

### OTHER DOPANTS

CorActive also offers other dopants such as Neodymium, Holmium, or Samarium.

CorActive High-Tech, Inc.  
2700 Jean-Perrin, Suite 121, Quebec City, QC  
Canada G2C 1S9  
Phone : 1-866-845-2466  
E-mail : sales@coractive.com  
www.coractive.com

**CorActive**  
Specialty Optical Fiber Manufacturer

## Ytterbium (YB) Doped Fibers

Model	Core Diameter/ MFD ( $\mu\text{m}$ )	Clad Diameter ( $\mu\text{m}$ )	Core NA	Clad/Core 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	11.0 $\pm$ 0.5	128 $\pm$ 3	0.085 $\pm$ 0.005	1.30 $\pm$ 0.15	N/A	DCF-UN-10/125-08	SCF-UN-10/125-08
DCF-YB-12/125-PM	12.0 $\pm$ 1.0	128 $\pm$ 3	0.085 $\pm$ 0.005	3.0 $\pm$ 0.6	$\geq 2.0\text{E-}04$	DCF-UN-10/125-08	PM 980
DCF-YB-20/128E*	20.0 $\pm$ 1.0	128 $\pm$ 3	0.080 $\pm$ 0.005	3.0 $\pm$ 0.3	N/A	DCF-UN-20/125-080	SCF-UN-20/125-08
DCF-YB-20/128P-FAC	20.0 $\pm$ 2.0	128 $\pm$ 3	0.075 $\pm$ 0.015	5.5 $\pm$ 1.0	N/A	DCF-UN-20/125-100	SCF-UN-20/125-100
DCF-YB-20/128P-FAS*	20.0 $\pm$ 2.0	128 $\pm$ 3	0.08 $\pm$ 0.01	9.0 $\pm$ 1.0		DCF-UN-20/125-100	SCF-UN-20/125-100
DCF-YB-50/400P-FAC*	50.0 $\pm$ 3.0	400 $\pm$ 5	0.085 $\pm$ 0.015	4.5 $\pm$ 0.75		DCF-UN-20/400-06	SCF-UN-20/400-06
DCF-YB-30/250P-FAC*	30.0 $\pm$ 2.0	250 $\pm$ 5	0.085 $\pm$ 0.015	4.0 $\pm$ 0.75		DCF-UN-30/250-070	SCF-UN-30/250-070
YB 100	5 $\pm$ 1	125 $\pm$ 2	0.16 $\pm$ 0.02	10 $\pm$ 2	$\geq 2.0\text{E-}04$	N/A	PM 980
YB 118	4 $\pm$ 1	125 $\pm$ 2	0.22 $\pm$ 0.02	80 $\pm$ 15	N/A	N/A	N/A
YB 198	4 $\pm$ 1	125 $\pm$ 2	0.22 $\pm$ 0.02	275 $\pm$ 50	N/A	N/A	N/A
YB 401	6 $\pm$ 1	125 $\pm$ 1	0.14 $\pm$ 0.02	140 $\pm$ 25	N/A	N/A	HI 1060
YB 401-PM	6 $\pm$ 1	125 $\pm$ 1	0.14 $\pm$ 0.02	140 $\pm$ 25	$\geq 3.0\text{E-}04$	N/A	PM 980
YB 406	5 $\pm$ 1	125 $\pm$ 2	0.16 $\pm$ 0.02	600 $\pm$ 100	N/A	N/A	HI 1060

\*Coming Soon. Specifications are preliminary and subject to change.

## Erbium/Ytterbium (EY) Doped Fibers

Model	Core Diameter/ MFD ( $\mu\text{m}$ )	Clad Diameter ( $\mu\text{m}$ )	Core NA	Clad/Core Absorption @915nm (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	N/A	DCF-UN-8/125-14	SCF-UN-8/125-14
DCF-EY-6/128-PM	6.5 $\pm$ 0.8	128 $\pm$ 3	0.20	0.70 $\pm$ 0.15	$\geq 1.2\text{E-}04$	DCF-UN-8/125-14-PM	PM 1550
DCF-EY-8/105/125	8.0 $\pm$ 1.0	105	0.22 $\pm$ 0.02	2.75 $\pm$ 0.50	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	N/A	DCF-UN-8/125-14	SCF-UN-8/125-14
DCF-EY-10/128H	10.0 $\pm$ 1.0	128 $\pm$ 3	0.20 $\pm$ 0.02	2.4 $\pm$ 0.4	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	$\geq 1.4\text{E-}04$	DCF-UN-8/125-14-PM	PM 1550
DCF-EY-10/200	10.0 $\pm$ 1.5	200 $\pm$ 10	0.20 $\pm$ 0.02	1.50 $\pm$ 0.25	N/A	DCF-UN-8/200-14	SCF-UN-8/200-14
DCF-EY-12/130	12.0 $\pm$ 1.0	130 $\pm$ 3	0.20 $\pm$ 0.02	2.8 $\pm$ 0.9	N/A	DCF-UN-8/125-14	SCF-UN-8/125-14
DCF-EY-12/130H	12.0 $\pm$ 1.0	130 $\pm$ 3	0.20 $\pm$ 0.02	3.2 $\pm$ 0.6	N/A	DCF-UN-8/125-14	SCF-UN-8/125-14
DCF-EY-16/250P	16.0 $\pm$ 1.0	250 $\pm$ 5	0.11 $\pm$ 0.01	1.75 $\pm$ 0.25	N/A	DCF-UN-15/250-10	SCF-UN-15/250-10
NSP-0100 (DCF-EY-8/128P)	8.0 $\pm$ 1.0	128 $\pm$ 2	0.12 $\pm$ 0.01	1.5 $\pm$ 0.5	N/A	DCF-UN-8/125-14	SCF-UN-8/125-14

CorActive High-Tech, Inc.  
2700 Jean-Perrin, Suite 121, Quebec City, QC  
Canada G2C 1S9  
Phone : 1-866-845-2466  
E-mail : sales@coractive.com  
www.coractive.com

**CorActive**  
Specialty Optical Fiber Manufacturer

### Erbium/Ytterbium (EY) Doped Fibers

Model	Core Diameter/ MFD ( $\mu\text{m}$ )	Clad Diameter ( $\mu\text{m}$ )	Core NA	Clad/Core Absorption @915nm (dB/m)	Birefringence	Matched Passive Double Clad Fiber	Matched Passive Single Clad Fiber
NSP-0101 (DCF-EY-11/128-16)	11.0 $\pm$ 1.0	128 $\pm$ 3	0.16 $\pm$ 0.01	2.5 $\pm$ 1.0	N/A	DCF-UN-8/125-14	SCF-UN-8/125-14
NSP-0102 (DCF-EY-25/250P)	25.0 $\pm$ 2.5	250 $\pm$ 5	0.10 $\pm$ 0.01	5.0 $\pm$ 1.0	N/A	DCF-UN-25/250-10	SCF-UN-25/250-10
EY 305	7 $\pm$ 1	125 $\pm$ 1	0.18	170 $\pm$ 20	N/A	N/A	N/A

### Erbium (ER) Doped Fibers

Model	Core Diameter/ MFD ( $\mu\text{m}$ )	Clad Diameter ( $\mu\text{m}$ )	Core NA	Clad/Core Absorption @ 1530 nm (dB/m)	Birefringence	Matched Passive Double Clad Fiber	Matched Passive Single Clad Fiber
ER8-6	6.5 $\pm$ 0.5	125 $\pm$ 0.5	0.22	8 $\pm$ 1	N/A	N/A	
ER12-6	6.5 $\pm$ 0.5	125 $\pm$ 0.5	0.22	12 $\pm$ 2	N/A	N/A	
ER35-7	6.5 $\pm$ 0.5	125 $\pm$ 2	0.22	35 $\pm$ 5	N/A	N/A	
ER35-7-PM	6.5 $\pm$ 0.5	125 $\pm$ 2	0.22	35 $\pm$ 5	$\geq 1.4\text{E-}04$	N/A	
NSP-0106 (SCF-ER60-8/125-12)	8.0 $\pm$ 1.0	125 $\pm$ 0.5	0.12	60 $\pm$ 10	N/A	N/A	
NSP-0108 (SCF-ER35-10/125-12)	10.0 $\pm$ 1.0	125 $\pm$ 0.5	0.12	35 $\pm$ 10	N/A	N/A	
NSP-0109 (SCF-ER35-12/125-10)	12.0 $\pm$ 1.0	125 $\pm$ 0.5	0.10	35 $\pm$ 10	N/A	N/A	
NSP-0110 (DCF-ER-25/128-075)	25.0 $\pm$ 2.5	127.5 $\pm$ 2.5	0.075	50 $\pm$ 10	N/A	N/A	

### Thulium (TM) Doped Fibers

Model	Core Diameter ( $\mu\text{m}$ )	Clad Diameter ( $\mu\text{m}$ )	Core NA	Clad /Core Absorption @ 790 nm (dB/m)	Birefringence	Matched Passive Double Clad Fiber	Matched Passive Single Clad Fiber
DCF-TM-6/128	6.5 $\pm$ 0.5	128 $\pm$ 3	0.22 $\pm$ 0.02	1.5 $\pm$ 0.3	N/A	DCF-UN-6/123-23	SCF-UN-6/125-23
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
NSP-0103 (DCF-TM-9/128P-13)	9.0 $\pm$ 1.0	128 $\pm$ 3	0.13 $\pm$ 0.01	3.0 $\pm$ 0.5	N/A	DCF-UN-8/125-14	SCF-UN-8/125-14
SCF-TM-8/125	8.0 $\pm$ 1.0	125 $\pm$ 1	0.17 $\pm$ 0.01	13 $\pm$ 2 @1567nm	N/A	N/A	SCF-UN-8/125-14
TH-512	9.0 $\pm$ 1.0	125 $\pm$ 1	0.16 $\pm$ 0.02	> 120	N/A	N/A	N/A
NSP-107 (DCF-TM-6/128-HA)	6.5 $\pm$ 0.5	128 $\pm$ 3	0.22 $\pm$ 0.02	2.5 $\pm$ 0.5	N/A	DCF-UN-6/123-23	SCF-UN-6/125-23
NSP-0111 (DCF-TM-10/200)	10.0 $\pm$ 1.0	200 $\pm$ 5	0.23 $\pm$ 0.02	3.5 $\pm$ 0.5	N/A	DCF-UN-8/200-18	SCF-UN-8/200-18

**CorActive High-Tech, Inc.**  
 2700 Jean-Perrin, Suite 121, Quebec City, QC  
 Canada G2C 1S9  
 Phone : 1-866-845-2466  
 E-mail : sales@coractive.com  
[www.coractive.com](http://www.coractive.com)

  
 Specialty Optical Fiber Manufacturer

## Other Dopants

Model	Core Diameter ( $\mu\text{m}$ )	Clad Diameter ( $\mu\text{m}$ )	Core NA	Core Absorption (dB/m)	Birefringence	Matched Passive Double Clad Fiber	Matched Passive Single Clad Fiber
ND 103	$5.0 \pm 0.5$	$125 \pm 1$	$0.14 \pm 0.02$	$> 35 @ 805\text{nm}$	N/A		
ND 103-PM	$5.0 \pm 1.0$	$125 \pm 2$	$0.12 \pm 0.02$	$> 40 @ 805\text{nm}$	$\geq 2.0\text{E-}04$		

CorActive High-Tech, Inc.  
2700 Jean-Perrin, Suite 121, Quebec City, QC  
Canada G2C 1S9  
Phone : 1-866-845-2466  
E-mail : sales@coractive.com  
www.coractive.com

**CorActive**  
Specialty Optical Fiber Manufacturer