

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, 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

Material Specifications

Core Material Doped Silica Glass

Inner Clad Material Silica Glass

Outer Clad Material Fluoroacrylate

Coating Material Acrylate

Geometrical and Mechanical Specifications

Clad Geometry Octagonal¹

Core/Clad Concentricity Error (μm) < 1¹

Proof Test Level (kpsi) 100²

¹ Unless otherwise specified. Consult product datasheet to verify value of specific model

² The specified proof test level is for a cladding dimension of 130 μm or less. Consult specific product datasheet for proof test levels of other cladding dimensions

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CorActive
Specialty Optical Fiber Manufacturer

STANDARD MODELS

Ytterbium (YB) Doped Double Clad Fibers

Model	Core Diameter (μm)	Clad Diameter (μm)	Core NA	Clad Absorption @ 915nm (dB/m)	Birefringence	Matched Passive Double Clad Fiber	Matched Passive Single Clad Fiber
DCF-YB-6/128	6.5 ± 1.0	128 ± 3	0.16 ± 0.02	0.65 ± 0.20	N/A	DCF-UN-6/125-12	SCF-UN-6/125-12
DCF-YB-6/128-PM	6.5 ± 1.0	128 ± 3	0.16 ± 0.02	0.60 ± 0.15	≥ 2.2E-04		
DCF-YB-7/128-FA	7.0 ± 1.0	128 ± 3	0.19 ± 0.02	0.9 ± 0.2	N/A	DCF-UN-6/125-14	HI 1060
DCF-YB-8/128P-FA	8.0 ± 1.0	128 ± 3	0.10 ± 0.02	1.8 ± 0.3	N/A	DCF-UN-8/125-10	SCF-UN-8/125-10
DC-YB-10/128P	10.0 ± 1.0	128 ± 3	0.08 ± 0.01	1.7 ± 0.3	N/A	DCF-UN-10/125-08	SCF-UN-10/125-08
DCF-YB-10/128-FA	10.0 ± 1.0	128 ± 3	0.19 ± 0.02	2.7 ± 0.5	N/A		SCF-UN-11/125-21
DCF-YB-12/125-PM	12.0 ± 1.0	125 ± 3	0.10 ± 0.015	3.0 ± 0.6	≥ 2.0E-04		
DCF-YB-13/250	12.5 ± 2.0	250 ± 10	0.085 ± 0.01	0.6 ± 0.2	N/A	DCF-UN-13/250-08	
DCF-YB-15/128	15.0 ± 2.0	128 ± 3	0.08 ± 0.01	2.0 ± 0.4	N/A		
DCF-YB-15/128P-FA	15.0 ± 2.0	128 ± 3	0.13 ± 0.02	5.5 ± 1.0	N/A	DCF-UN-15/125-13	SCF-UN-15/125-11
DCF-YB-20/128P	20.0 ± 2.0	128 ± 3	0.08 ± 0.01	7.0 ± 1.5	N/A	DCF-UN-20/125-08	SCF-UN-20/125-08
DCF-YB-20/128P-FA	20.0 ± 2.0	128 ± 3	0.11 ± 0.02	9.0 ± 2.0	N/A	DCF-UN-20/125-11	SCF-UN-20/125-12
DCF-YB-20/128-PM	20.0 ± 2.0	128 ± 3	0.09 ± 0.01	4.5 ± 1.0	N/A		
DCF-YB-25/250	25.0 ± 3.0	250 ± 10	0.08 ± 0.01	2.3 ± 0.4	N/A		
DCF-YB-25/250-PM	25.0 ± 3.0	250 ± 10	0.07 ± 0.01	1.6 ± 0.3	≥ 1.5E-04		
DCF-YB-30/250	30.0 ± 3.0	250 ± 10	0.08 ± 0.01	2.7 ± 0.5	N/A	DCF-UN-30/250-11	SCF-UN-30/250-11
DCF-YB-30/250P-FA	30.0 ± 3.0	250 ± 10	0.11 ± 0.015	5.5 ± 1.0	N/A	DCF-UN-30/250-11	SCF-UN-30/250-11
DCF-YB-30/250-PM	30.0 ± 3.0	250 ± 10	0.07 ± 0.01	2.0 ± 0.4	N/A		
DCF-YB-50/400P-FA	50.0 ± 5.0	400 ± 15	0.13 ± 0.02	4.5 ± 1.0	N/A	DCF-UN-50/400-11	SCF-UN-50/400-11

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

Model	Core Diameter (μm)	Clad Diameter (μm)	Core NA	Clad Absorption (dB/m)	Birefringence	Matched Passive Double Clad Fiber	Matched Passive Single Clad Fiber
DCF-ER-35/125	35 ± 4.0	125 ± 5	0.15 ± 0.02	1.3 ± 0.4 (@980nm)	N/A		
DCF-ER-70/250	70 ± 7.0	250 ± 10	0.20 ± 0.02	0.6 ± 0.2 (@980nm)	N/A		
DCF-EY-6/128	5.5 ± 0.5	128 ± 3	0.20 ± 0.02	0.75 ± 0.15 (@915nm)	N/A	DCF-UN-8/125-14	SCF-UN-8/125-14
DCF-EY-7/128	7.0 ± 1.0	128 ± 3	0.20 ± 0.02	0.9 ± 0.3 (@915nm)	N/A	DCF-UN-8/125-14	SCF-UN-8/125-14
DCF-EY-10/128	10.0 ± 1.0	128 ± 3	0.20 ± 0.02	2.0 ± 0.5 (@915nm)	N/A	DCF-UN-8/125-14	SCF-UN-8/125-14
DCF-EY-10/128-PM	10.0 ± 2.0	128 ± 3	0.20 ± 0.02	2.0 ± 0.5 (@915nm)	≥ 1.4E-04	DCF-UN-8/125-14-PM	
DCF-EY-12/130	12.0 ± 1.0	130 ± 3	0.20 ± 0.02	2.8 ± 0.9 (@915nm)	N/A	DCF-UN-8/125-14	SCF-UN-8/125-14
DCF-EY-17/200	17.0 ± 2.0	200 ± 10	0.18 ± 0.02	2.5 ± 1.0 (@915nm)	N/A	DCF-UN-17/200-18	SCF-UN-17/200-18
DCF-EY-23/210	23.5 ± 2.0	210 ± 10	0.21 ± 0.02	3.7 ± 1.0 (@915nm)	N/A		
DCF-EY-28/250	27.5 ± 2.5	250 ± 15	0.21 ± 0.02	3.7 ± 1.0 (@915nm)	N/A		

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Thulium (TM) Doped Double Clad Fibers							
Model	Core Diameter (μm)	Clad Diameter (μm)	Core NA	Clad Absorption @ 790 nm (dB/m)	Birefringence	Matched Passive Double Clad Fiber	Matched Passive Single Clad Fiber
DCF-TM-6/125	6.0 ± 1.0	125 ± 3	0.23 ± 0.2	1.4 ± 0.3	N/A	DCF-UN-6/123-23	
DCF-TM-20/400P	20.0 ± 2.0	400 ± 15	0.11 ± 0.01	5.5 ± 1.0	N/A		
DCF-TM-30/480P	30.0 ± 3.0	480 ± 20	0.11 ± 0.015	8 ± 2	N/A		

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