

CorActive Er & Er/Yb Doped Fibers For Eye-Safe Fiber Lasers & Amplifiers

CorActive's Er doped and Er/Yb co-doped single clad and double clad fibers offer high doping concentrations and high QCE values that ensure minimum fiber length, minimum pump power and reduced non-linearities. These fibers also feature highly efficient energy transfer that makes these products the ideal solution for the design of LIDARs or eye-safe fiber lasers and amplifiers.

ADVANTAGES

- High pump absorption allowing short fiber lengths
- Er/Yb co-doping provides highly efficient energy transfer and allows low cost, high power pumps
- Optimized Er/Yb core composition
 - Efficient energy transfer
 - Reduced 1um emission

APPLICATIONS

- Eye-safe fiber lasers and amplifiers
- High-energy / long-range LIDAR
- Scientific/Research
- Medical

SPECIFICATIONS

Parameters	Single Clad Fibers	Double Clad Fibers
Optical Specifications		
Clad Numerical Aperture	Not Applicable	> 0.45
Material Specifications		
Core Material	Er & Er/Yb Co-Doped Silica Glass	Er & Er/Yb Co-Doped Silica Glass
Inner Clad Material	Silica Glass	Silica Glass
Outer Clad Material	Not Applicable	Fluoroacrylate
Coating Material	Acrylate	Acrylate
Geometrical and Mechanical Specifications		
Clad Geometry	Not Applicable	Octagonal ¹
Proof Test Level (kpsi)	100 ²	100 ²

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

² Consult specific product datasheet for exact proof test level

Er/Yb (EY) Co-Doped Double-Clad Fibers						
Model	Core Diameter (μm)	Clad Diameter (μm)	Core NA	Clad Absorption (dB/m)	Matched Passive Double-Clad Fiber	Matched Passive Single-Clad Fiber
DCF-ER-70/250	70 ± 7	250 ± 10	0.20 ± 0.02	0.6 ± 0.2 (@980nm)		
DCF-EY-6/128	5.5 ± 0.5	128 ± 3	0.20 ± 0.02	0.75 ± 0.15 (@915nm)	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)	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)	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)	DCF-UN-8/125-14-PM	
DCF-EY-12/128	12.0 ± 1.0	130 ± 3	0.20 ± 0.02	2.8 ± 0.9 (@915nm)		
DCF-EY-17/200	17.0 ± 2.0	200 ± 10	0.18 ± 0.02	2.5 ± 1.0 (@915nm)		
DCF-EY-23/210	23.5 ± 2.0	210 ± 10	0.21 ± 0.02	3.7 ± 1.0 (@915nm)		
DCF-EY-28/250	27.5 ± 2.5	250 ± 15	0.21 ± 0.02	3.7 ± 1.0 (@915nm)		

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CorActive
Specialty Optical Fiber Manufacturer

STANDARD MODELS

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
ER 614	20.0 ± 2.0	125 ± 2	N/A	0.18 ± 0.02	> 10 (@980nm)	N/A	
ER 637	50.0 ± 3.0	125 ± 2	N/A	0.22 ± 0.02	> 25 (@980nm)	N/A	
SCF-ER22-5/125-25	N/A	125 ± 1	5.7 ± 0.6	0.25	22 ± 3 (@1530nm)	N/A	
SCF-ER30-5/125-25-PM	N/A	125 ± 2	5.5 ± 0.5	0.25	30 ± 5 (@1530nm)	≥ 1.4E-04	
SCF-EY190-6/125-17	6.0 ± 1.0	125 ± 1	N/A	0.17 ± 0.02	190 ± 20 (@915nm)	N/A	
SCF-EY575-9/125-22	9.0 ± 1.0	125 ± 1	N/A	0.22 ± 0.02	575 ± 50 (@915nm)	N/A	
EY 110	N/A	125 ± 1	8.0 ± 1.0	0.18	300 ± 60 (@915nm)	N/A	
EY 302	N/A	125 ± 1	6.0 ± 1.0	0.18	120 ± 20 (@915nm)	N/A	Photosensitive, Confined ¹
EY 305	N/A	125 ± 1	7.0 ± 1.0	0.18	120 ± 20 (@915nm)	N/A	Photosensitive, Confined ¹