Medical Fiber

Everfoton's Medical Fiber with a large core diameter and multi-cladding energy transmission is designed to popularize the applications related to minimally invasive medical cosmetology. Relying on YOFC's excellent specialty cable processing technology, we can also provide customers with overall manufacturing solutions for energy transmission fiber patchcords.

Characteristics

- Ultra-low insertion loss
- High strength and not easy to break
- Excellent bending resistance
- Excellent biocompatibility

Applications

- Medical imaging diagnosis
- Neurosurgery
- Laser tissue resection/Ablation/Lithotripsy, etc.
- Optical imaging
- Medical device manufacturing

Specifications

Fiber Type	SI 150/190 -22/370E(DC)	SI 200/240-22/365E (DC)	SI 272/300 -22/450E(DC)	SI 365/400 -22/550E(DC)	SI 550/600 -22/750E (DC)
Part No.	SI2141-A	SI2141-E	SI2141-B	SI2141-C	SI2141-D
Optical Properties					
Operating Wavelength (nm)	800~2200				
Core NA	0.22±0.02	0.22±0.02	0.22±0.02	0.22±0.02	0.22±0.02
Cladding NA	≥0.37	≥0.37	≥0.37	≥0.37	≥0.37
Core Attenuation@2140nm (dB/km)	≤100	≤100	≤100	≤100	≤100
Hydroxyl Content	Low OH	Low OH	Low OH	Low OH	Low OH
Fiber Refractive Index Structure	Step Index	Step Index	Step Index	Step Index	Step Index
Geometrical/Mechanical Properties					
Core Diameter (μm)	150.0±3.0	200.0±3.0	272.0±5.0	365.0±8.0	550.0±10.0
Cladding Diameter (μm)	190.0±4.0	240.0±5.0	300.0±8.0	400.0±8.0	600.0±10.0
Coating Diameter (μm)	225.0±5.0	275.0±10.0	330.0±5.0	430.0±5.0	640.0±10.0
Tight Cladding Diameter (μm)	362.5±12.5	365.0±20.0	450.0±25.0	550.0±25.0	750.0±30.0
Core/Cladding Concentricity (μm)	≤5.0	≤3.0	≤5.0	≤7.0	≤9.0
Proof Test (kpsi)	≥100	≥100	≥75	≥75	≥75
Core Material	Pure Quartz Glass	Pure Quartz Glass	Pure Quartz Glass	Pure Quartz Glass	Pure Quartz Glass
Cladding Material	Fluorine-doped Quartz Glass	Fluorine-doped Quartz Glass	Fluorine-doped Quartz Glass	Fluorine-doped Quartz Glass	Fluorine-doped Quartz Glass
Coating Material	Low Refractive Index Coating	Low Refractive Index Coating	Low Refractive Index Coating	Low Refractive Index Coating	Low Refractive Index Coating
Tight Cladding Material/Color	ETFE/Blue	ETFE/Blue	ETFE/Blue	ETFE/Blue	ETFE/Blue
Operating Temperature (°C)	-40~+85	-40~+85	-40~+85	-40~+85	-40~+85