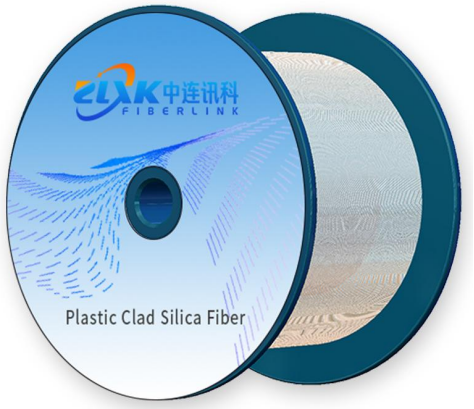
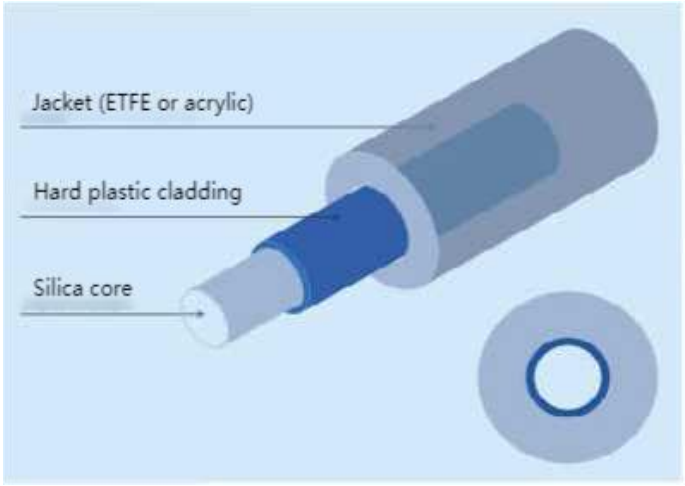
Plastic Clad Quartz Fiber

Product Description

Plastic clad quartz fiber is a multi-mode fiber with high purity and low hydroxyl quartz as the core and gas-containing acrylic resin as the cladding. The hard plastic cladding is the cladding layer and the coating layer. At the same time, after tightening the outer sheath structure, it can provide better moisture resistance and higher tensile strength than ordinary quartz cladding. So the optical fiber is widely used in industry, communication and near infrared spectrum application environment.





Features

- Large numerical aperture of 0.37, providing higher coupling efficiency
- Excellent radiation resistance
- Good flexibility and fatigue resistance
- Good mechanical strength
- Better connectivity than ordinary optical fiber
- High transmittance N 98%/m (X 632nm)
- Wide usage spectrum 300~1600nm

Applications

- Power Signal Transmission
- Locomotive Traction Control
- Medical sensing
- Laser transmission
- Short and medium distance communication
- Laser medical hand
- Optical temperature measurement
- Nuclear radiation monitoring
- Fiber optic lighting
- Near-infrared spectral detection and other fields
- Commonly used in visible light, ultraviolet fluorescence transmission

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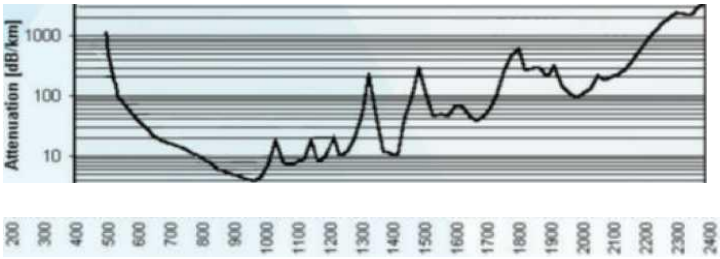
Optical mapping



Product parameters

Pure quartz core with fluoroacrylate coating and ETFE cladding, lOOksi strength verification, 0.37 ±0.02 numerical aperture, -40/150°C, 100D minimum radius for short term use, 300D minimum for long term use (D is Clad Diameter).

Product Specifications						
Fiber Type	PCF-100/130/ E400-37	PCF-150/180/ E400-37	PCF-200/230/ E500-37	PCF-300/330/ E650-37	PCF-400/430/ E730-37	PCF-600/630/ E1000-37
NA Value	0.37 ± 0.02	0.37 ± 0.02	0.37 ± 0.02	0.37 ± 0.02	0.37 ± 0.02	0.37 ± 0.02
Core Diameter（μm）	100 ± 0.7	150 ±0.7	200 ±2	300 ±3	400 ±3	600 ±5
Cladding diameter（um）	130+0/-5	180+0/-5	230 +0/-5	330+ ± 5	430+5/-10	630+5/-10
tight cladding diameter（um ）	400 ± 20	400 ± 20	500 ± 25	650 ± 30	730 ± 30	1000±30
core-cladding concentrictiy（μm）	W 5	W 5	W 5	W 6	W 6	W 6
Core out of roundness（%）	W 1	W 1	W 1	W 1	W 1	W 1
Operating temperature（P）			-40°C /150°C			
Fiber core material			Low hydroxyl pure quartz glass			
Cladding material			Gas-doped acrylic resin			
Tight Cladding Material		ETFE （FEP with better performance can be replaced）				
Other specifications of fiber can be customized upon request.						

Code naming rule：

Take PCF-200/230/E500-37 for example, PCF fiber type, 200/230 core/cladding diameter, E tight cladding material, 500 tight cladding diameter, 37 numerical aperture.