



02 石英光纤缆

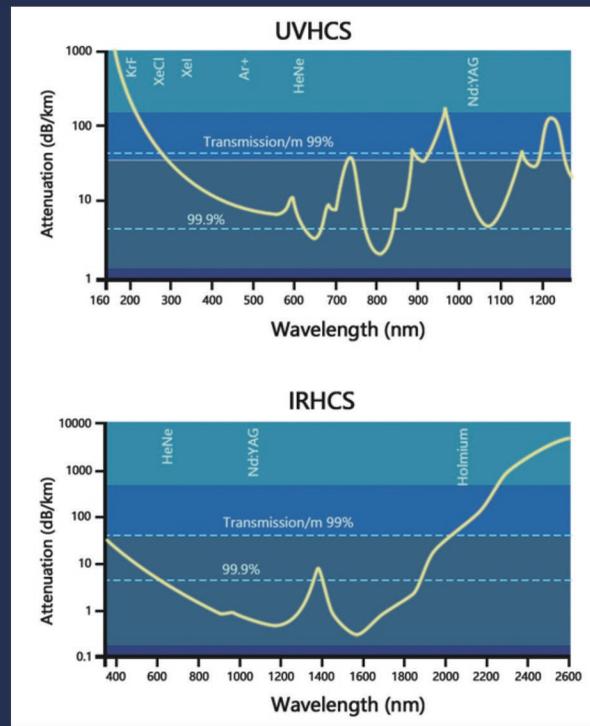
Quartz fiber optic bundle
箭特科技 新创意 新光效

Hard Clad Silica (HCS) Fiber Optic

石英双层光纤按光谱传输范围分为紫外石英双层光纤 (UVHCS) 和红外石英双层光纤 (IRHCS) ;

Based on different waveband, HCS fiber optic can be divided into Ultraviolet Hard Clad Silica (UVHCS) Fiber Optic and Infrared Hard Clad Silica (IRHCS) Fiber Optic.

数值孔径 Numerical Aperture (NA):
UVHCS 0.22±0.02、IRHCS 0.27±0.02
传输波段 Waveband: UVHCS: 190nm~1200nm
IRHCS: 350nm~2500nm
透射率 Transmission Rate (波长 Wavelength 632.8nm):
≥ 99.7%/m
长期使用温度 Working Temperature: -40°C~80°C
长期弯曲半径 Long-term radius of curvature:
300D (D为光纤包层外径 D is the outer diameter of clad)
短期弯曲半径 Short-term radius of curvature:
100D (D为光纤包层外径 D is the outer diameter of clad)



01 液芯光纤

Liquid Core Light Guide
箭特科技 新创意 新光效

Liquid core optical fiber is a new kind of light transmission device. It uses liquid material as core material, polymer material as the cortex tube. It has large core diameter, large numerical aperture, wide transmission spectrum, high efficiency light transmission, especially in the UV band has excellent light transmission efficiency. It is especially suitable for UV curing, fluorescence detection, forensic evidence, scientific research and so on. The effective transmission range is 300~600nm.

液芯光纤是一种新型结构的光传输元件，它采用液体材料作为芯料、聚合物材料作为皮层管，具有大芯径、大数值孔径、光谱传输范围广、传光效率高等特点，尤其是在紫外光波段比普通的石英传光束具有优越的传光效率，特别适用于紫外固化、荧光检测、刑侦取证、科学研究等。有效传光范围为300nm~600nm。

透光直径 Optical diameter (mm)	3	5	8	10
最小弯曲半径 Minimum bending radius (mm)	40	60	100	150
数值孔径 NA	≥0.5 2α≥60°			
透射率 Transmissivity	≥80%(λ=365nm, L=1000mm)			
使用温度 Service temperature	-10~40°C			
端面使用温度 Tip service temperature	<250°C			

03 玻璃光纤导光棒

Glass fiber optic dental rod
箭特科技 新创意 新光效

玻璃光纤导光棒 Glass Fiber Optic Rod

玻璃光纤导光棒是一种纤维光学原件，由一束规则排列的多组份玻璃光纤熔融而成，具有传光和传输低分辨率图像的功能。Glass Fiber Optic Light Conducting Rod is a solid fiber optic element consists of a bundle of multi-component glass optical fibers fused together in parallel. This construction enables the rod not only to transmit light but also low resolution images.

应用范围 Application
牙科固化机用导光元件
半导体激光治疗用导光元件
低分辨率传像元件
提高照明强度用锥形导光元件
Light conducting element for dental light curing unit
Light conducting element for medical treatment by semi-conducting laser
Image transmitting element with low resolution
Fiber taper to raise luminous intensity



技术指标 Technical Specification

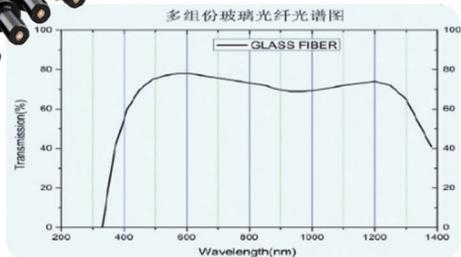
数值孔径 Numerical Aperture >0.6
外径规格 Outer Diameter 2.5mm-15mm
长度公差 Diameter Tolerance ±0.2mm
长度 Length 5mm-1000mm
分辨率 Resolution 2lp/mm-8lp/mm
光透射率 Light Transmittance ≥80%
耐热性 Temperature Resistance ≥400°C
弯曲角度 Angle of Curve 90° -180°

04 玻璃光纤传光束
 † Glass fiber optic light guide bundle
 箭特科技 新创意 新能效

多组份玻璃光纤用高折射率光学玻璃做芯料，低折射率玻璃作皮料，采用双坩埚法或棒管法拉制而成。根据不同的应用，经过合理设计和精密的制作过程，采用先进的生产技术，玻璃光纤可以制作成各类玻璃光纤传光束。一般情况下，光束的透过率每米大于56%。玻璃光纤本身为无机材料，耐热温度大于500℃。

A compound glass optical fiber consist of a core with high refractive index and a cladding with lower refractive index, drawn by double-crucible process or rod-in-tube process. According to different applications, with rational design and delicate manufacture, using advanced technology, we can provide various of glass optical fiber products, with transmissivity more than 56% per meter. Glass optical fiber itself is an inorganic material, which is resistant to temperature higher than 500℃.

单丝直径 Single Diameter 15um-55um
 数值孔径 Numerical Aperture 0.56, 0.6, 0.64, 0.83
 发散角 Divergence Angle: 70°, 75°, 80°, 120°
 透过率/m Transmissivity/m ≥ 56%
 光纤强度 Fiber Strength > 150kg/mm
 光谱范围 Spectrum Range 380-1300nm



Spectral curve of compound glass optical fiber
 玻璃光纤传光束由多组份玻璃光纤和PVC或不锈钢护套构成。可用于缝隙照明，条码扫描等。

Glass Fiber Light Guide is composed by glass fiber optic core and PVC/stainless jacket. It can be used for gap lighting, code scanning and so on.



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Company profile //玻璃光纤·石英光纤//

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