

Image Fibre

Yangtze Optical Fibre and Cable Joint Stock Limited Company

YOFC XiangBand™ Image fibre is a novel optical fibre independently developed by YOFC for fibre-optic endoscopy, leveraging the company's technological expertise in core rod deposition and fibre fabrication. The fibre comprises an imaging surface, cladding, and a protective coating. The imaging surface contains densely arranged cores, where each core functions as an individual pixel, enabling the high-definition, lossless transmission of images from one end to the other. This fibre exhibits excellent geometric consistency, high flexibility, high pixel density, low crosstalk between cores, and outstanding bending resistance.

YOFC XiangBand™ Image fibre fully complies with the Class A mucosal biological compatibility standards of GB/T16886.1, making it suitable for medical fibre-optic endoscopes. It offers significant advantages, including a wide field of view, high resolution, and high transmittance. Furthermore, it facilitates non-invasive optical biopsy at specific depths beneath the surface of biological tissues, offering capabilities unmatched by electronic endoscopic systems.



Facebook

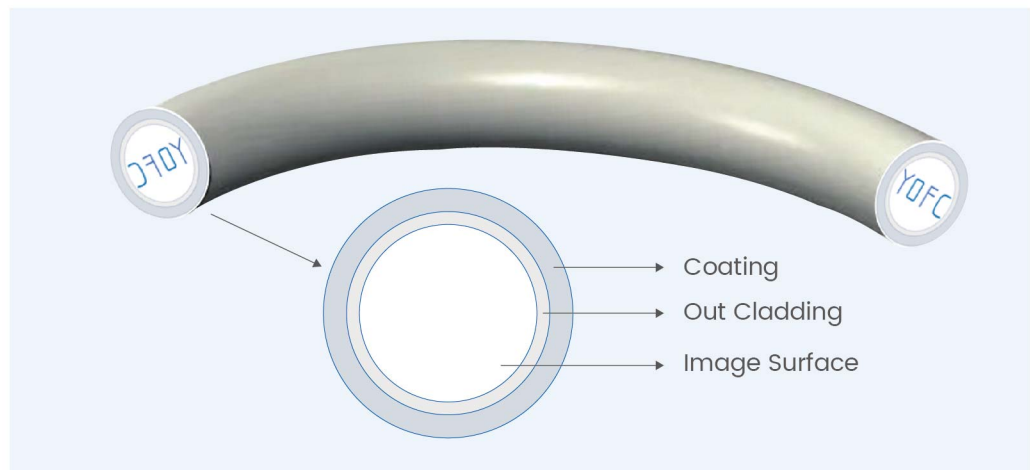


LinkedIn

/ Tel: +86-400-006-6869

/ Email: 400@yofc.com

/ Web: en.yofc.com



— Characteristics

- Excellent geometric consistency, high flexibility, and superior bending resistance.
- Wide field of view, high resolution, and high transmittance for image transmission.
- Fully complies with the biological compatibility requirements of Class A mucosal materials according to GB/T16886.1, suitable for use in medical endoscopes.

— Key Parameters

Key Parameter	10,000-core Fibre	30,000-core Fibre	Unit
Core Count	10000±1000	30000±3000	/
Image Surface Diameter	325±20	600±30	[μm]
Cladding Diameter	350±25	650±30	[μm]
Fibre Diameter	450±30	750±50	[μm]
Image Surface Non-Circularity	≤5	≤5	[%]
End-face Defect	≤0.1	≤0.1	[%]
Minimum Storage Radius	35	70	[mm]
Minimum Operating Radius	20	35	[mm]
Delivery Segment Length	Customizable	Customizable	[m]