

165 μ m Reduced Diameter Bending Insensitive Fibre

Yangtze Optical Fibre and Cable Joint Stock Limited Company

YOFC 165 μ m fibre realized reduced fibre outer diameter with excellent bending performance thanks to its bending insensitive fibre design, furthermore, by reducing the outer clad's thickness, YOFC 165 μ m fibre's glass part diameter is only 80 μ m and has the similar MFD to standard G.657.B3 fibre.

YOFC 165 μ m reduced diameter bending insensitive fibres delivers the outstanding bending performance to a 5mm radius for demanding applications while maintaining compatible with conventional G.652.D and G.657 fibres. It is an excellent choice for application where small size, small bend radii may be encountered.

Applications

Small-sized optical component

Characteristics

- Outstanding bending performance and compatible with G.652.D and G.657 fibres
- Proof-tested to 200 KPSI to ensure reliability
- 56% less CSA than conventional 250 μ m coated fibre enabling smaller size optical component



Characteristics		Conditions	Specified values	Units
Optical Characteristics				
Attenuation		1550nm	≤ 0.30	[dB/km]
Zero Dispersion Wavelength (λ ₀)		--	1300 - 1324	[nm]
Zero dispersion Slope (S ₀)		--	≤ 0.092	[ps/(nm²· km)]
Fibre Cut-off Wavelength		--	≤ 1520	[nm]
Mode Field Diameter (MFD)		1550nm	9.15 - 10.15	[μm]
Geometrical Characteristics				
Cladding Diameter		--	80.0 ± 0.5	[μm]
Cladding Non-Circularity		--	≤ 0.7	[%]
Coating Diameter		--	155 - 175	[μm]
Coating/Cladding Concentricity Error		--	≤ 12	[μm]
Coating Non-Circularity		--	≤ 6.0	[%]
Core/Cladding Concentricity Error		--	≤ 0.3	[μm]
Curl (radius)		--	≥ 4	[m]
Delivery Length		--	≥ 0.5	[km]
Environmental Characteristics		1550nm & 1625nm		
Temperature Dependence Induced Attenuation		-60°C to +85°C	≤ 0.05	[dB/km]
Temperature-Humidity Cycling Induced Attenuation		-10°C to +85°C, 98% RH	≤ 0.05	[dB/km]
Watersoak Dependence Induced Attenuation		23°C, for 30 days	≤ 0.05	[dB/km]
Damp Heat Induced Attenuation		85°C and 85% RH, for 30 days	≤ 0.05	[dB/km]
Dry Heat Aging		85°C, for 30 days	≤ 0.05	[dB/km]
Mechanical Specifications				
Proof Test		--	200	[KPSI]
Macro-bend Induced Loss	1 Turn Around a Mandrel of 5 mm Radius	1550nm	≤ 0.1	[dB]
		1625nm	≤ 0.3	[dB]
	1 Turn Around a Mandrel of 7.5 mm Radius	1550nm	≤ 0.08	[dB]
		1625nm	≤ 0.25	[dB]
	1 Turn Around a Mandrel of 10 mm Radius	1550nm	≤ 0.03	[dB]
		1625nm	≤ 0.1	[dB]
Dynamic Fatigue Parameter (n _f)		--	≥ 20	--
Tensile Strength		F15%	≥ 3.14	[GPa]
		F50%	≥ 3.80	[GPa]