

FutureGuide™-BIS-B
Compliant with ITU-T G.657.A2

We offer FutureGuide™-BIS-B with macro-bend performance compliant with ITU-T G.657.A2. Our optical fiber achieves a trench index profile through Fujikura's proprietary refractive index profile control technology, which has been developed to deliver superior bending performance. With its exceptional bending characteristics, this fiber optic cable is suitable for various FTTx applications such as drop cables, slim indoor/outdoor cables, and patch cords for SDU and MDU applications, thereby expanding the lineup of FTTx solutions. Furthermore, its outstanding bending performance allows for compact cable dimensions and flexible wiring, contributing to space-saving and reduced installation time. Handling the wiring also becomes easier.

Features

- Superior macrobend performance complying with ITU-T G.657.A2 performance.
- Zero(low)-water peak attenuation complying with ITU-T G.652.

Customer's advantages

- Helps flexible wiring and to save wiring space and installation time with easy handling.
- Allows for the reduction of cable dimensions and supports high-count cables. It enables high fiber density in networks while offering consistent and stable performance in the field.
- Helps full-band CWDM by its zero(low)-water peak technology.

Optical Characteristics

Attenuation	
Attenuation coefficient at 1310 nm	≤ 0.35 dB/km
Attenuation coefficient at 1383 nm	≤ 0.34 dB/km *1
Attenuation coefficient at 1550 nm	≤ 0.20 dB/km
Attenuation coefficient at 1625 nm	≤ 0.22 dB/km
Attenuation vs. wavelength *2	
1285 – 1330 nm ref. λ of 1310 nm	$\alpha \leq 0.03$ dB/km
1525 – 1575 nm ref. λ of 1550 nm	$\alpha \leq 0.02$ dB/km
Macro-bending loss	
∅ =30 mm, 10 turns at 1550 nm	≤ 0.03 dB
∅ =30 mm, 10 turns at 1625 nm	≤ 0.1 dB
∅ =20 mm, 1 turn at 1550 nm	≤ 0.1 dB
∅ =20 mm, 1 turn at 1625 nm	≤ 0.2 dB
∅ =15 mm, 1 turn at 1550 nm	≤ 0.5 dB
∅ =15 mm, 1 turn at 1625 nm	≤ 1.0 dB

Cut off wavelength	
Cable cut-off wavelength	≤ 1260 nm
Chromatic dispersion	
Chromatic dispersion coefficient at 1285-1330 nm	≤ 3.5 ps/(nm·km)
Chromatic dispersion coefficient at 1550 nm	13.3 - 18 ps/(nm·km)
Chromatic dispersion coefficient at 1625 nm	17.2 - 22 ps/(nm·km)
Zero-dispersion wavelength	1300 - 1324 nm
Zero-dispersion slope	0.073 - 0.092 ps/(nm ² ·km)
Polarization mode dispersion (PMD) *3	
Uncabled fiber PMD coefficient	≤ 0.1 ps/√km
Link design value PMD ₀	≤ 0.08 ps/√km

*1. The attenuation at 1383nm after hydrogen aging in accordance with IEC60793-2-50

*2. The attenuation within the specified wavelength range is limited to a difference of α or less compared to the reference wavelength (ref. λ).

*3. This characteristic is guaranteed only in a virtually tension-free condition.



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Structural Characteristics

Mode field diameter at 1310 nm	8.6 ± 0.4 μm
Cladding diameter	125.0 ± 0.7 μm
Coating diameter (uncolored)	240 ± 5 μm
Coating diameter (colored)	250 ± 10 μm
Core concentricity error	≤ 0.5 μm
Cladding non-circularity	≤ 1.0 %
Coating-Cladding concentricity	≤ 12 μm
Fiber curl radius	≥ 4.0 m

Mechanical Characteristics

Proof test *4	≥ 1 % (100 kpsi or 0.7 GPa)
Dynamic stress corrosion susceptibility parameter (n _d)	≥ 20
Coating strippability F	1.3 N ≤ F ≤ 8.9 N

*4. The product is subjected to tensile testing throughout its entire length.

Environmental Characteristics

	Attenuation Change at 1310, 1550, 1625 nm
Temperature dependence -60 to 85 °C	≤ 0.05 dB/km Ref. temp. 23 °C
Water immersion at 23 °C ± 2 °C	≤ 0.05 dB/km
Dry heat at 85 °C ± 2 °C	≤ 0.05 dB/km Ref. temp. 23 °C
Damp Heat 85 °C at 85 %R.H.	≤ 0.05 dB/km Ref. temp. 23 °C

Performance Characteristics

	Typical value
Zero dispersion wavelength	1315 nm
Zero dispersion slope	0.086 ps/(nm ² ·km)
Effective group index of refraction N _{eff} at 1310 nm	1.4681
Effective group index of refraction N _{eff} at 1550 nm	1.4687
Effective group index of refraction N _{eff} at 1625 nm	1.4691

Note: This document is published for your reference purpose only and the specifications for commercial purpose will be issued upon agreement with customers.

Note: If you require more detailed information, please contact us by scanning the QR code below.



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