

Bend Insensitive Single Mode Fiber

Applications

- Short pitch cables
- High performance networks operating in O-(E)-S-C-L Band
- High speed optical routes in FTTX
- Cable with extremely tight bending requirements
- Compact optical components

Characteristics

- Low macro bending sensitivity including L-band
- Low micro bending induced loss
- Low splice loss
- High splice yields
- Superior geometry



Specifications

Part Number	1111	1112	1113	1114	1115	1116
Optical Properties						
Attenuation (dB/km) @1310 nm	≤0.39	≤0.52	≤0.35	≤0.35	N/A	N/A
Attenuation (dB/km) @1383 nm	N/A	N/A	≤0.35	≤0.35	N/A	N/A
Attenuation (dB/km) @1490 nm	≤0.26	≤0.52	N/A	N/A	N/A	N/A
Attenuation (dB/km) @1550 nm	≤0.23	≤0.33	≤0.21	≤0.21	≤0.25	≤0.25
Attenuation (dB/km) @1625 nm	≤0.25	≤0.33	≤0.23	≤0.23	≤0.26	≤0.26
Zero Dispersion Wavelength (nm)	≤1420	≤1450	1312 ± 12.0	1312 ± 12.0	N/A	N/A
Cable Cut-Off Wavelength λ_{cc} (nm)	≤1260	≤1260	≤1260	≤1260	≤1460	≤1460
Mode Field Diameter (μm) @ 1310 nm	6.5 ± 0.4	5.6 ± 0.4	8.8 ± 0.4	8.8 ± 0.4	N/A	N/A
Mode Field Diameter (μm) @ 1550 nm	7.4 ± 0.5	6.5 ± 0.5	9.8 ± 0.5	9.8 ± 0.5	7.5 ± 0.4	7.5 ± 0.4
Geometric Properties						
Cladding Diameter (μm)	124.8 ± 1.0	124.8 ± 1.0	125.0 ± 0.7	125.0 ± 0.7	125.0 ± 0.7	80.0 ± 1.0
Cladding Non-Circularity (%)	≤1.0	≤1.0	≤0.7	≤0.7	≤1.0	≤1.0
Coating Diameter (μm)	245.0 ± 7.0	245.0 ± 7.0	245.0 ± 5.0	245.0 ± 5.0	245.0 ± 5.0	165.0 ± 5.0
Core Concentricity Error (μm)	≤0.6	≤0.6	≤0.5	≤0.5	≤0.6	≤0.6

Macro-bending Induced Loss						
Φ 10 mm - 25 turn (dB) @ 1550 nm	N/A	N/A	N/A	N/A	≤0.02	≤0.02
Φ 15 mm - 1 turn (dB) @ 1550 nm	≤0.05	≤0.01	N/A	≤0.2	N/A	N/A
Φ 15 mm - 1 turn (dB) @ 1625 nm	≤0.10	≤0.02	N/A	≤0.5	N/A	N/A
Φ 20 mm - 1 turn (dB) @ 1550nm	≤0.02	≤0.005	≤0.75	≤0.1	N/A	N/A
Φ 20 mm - 1 turn (dB) @ 1625 nm	≤0.05	≤0.005	≤1.5	≤0.2	N/A	N/A
Φ 30 mm - 10 turns (dB) @ 1550 nm	≤0.01	≤0.002	≤0.25	≤0.03	N/A	N/A
Φ 30 mm - 10 turns (dB) @ 1625 nm	≤0.02	≤0.006	≤1.0	≤0.1	N/A	N/A
Environmental Properties						
Temperature Induced Loss (dB/km) -60°C to 85°C	≤0.05	≤0.05	≤0.05	≤0.05	≤0.05	≤0.05
Mechanical Properties						
*Proof Test Level (kpsi)	100	100	100	100	200	100
* Standard delivery length per reel is available up to 50.4 km. Longer length per reel upon customer request is also available.						
* Customized BI-SMFs are available, such as different geometrical parameters, NA and higher strength.						



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