

This specification corresponds to fibers optimized for transmission in the wavelengths of 1550 nm, according to subcategory G.655.D of ITU-T. The fundamental property of these fibers is that the chromatic dispersion coefficient, in absolute value, greater than zero in the wavelength range from 1530 to 1565 nm. This dispersion reduces the occurrence of nonlinear phenomena, which can be particularly damaging in DWDM systems.

Optical and geometric specifications

| Optical parameters | Fiber not wired | Wired fiber |
|-------------------------------------|--------------------------------|--------------|
| Attenuation at 1550 nm | ≤ 0,22 dB/Km | ≤ 0,24 dB/Km |
| Attenuation at 1625 nm | ≤ 0,25 dB/Km | ≤ 0,26 dB/Km |
| Max. discontinuity point in 1550 nm | ≤ 0,05 dB | |
| Cutoff wavelength | | ≤ 1450 nm |
| Zero dispersion point | 1500 nm | |
| Zero dispersion slope | ≤ 0,092 ps/nm ² .Km | |
| Chromatic Dispersion: | | |
| 1530 - 1565 nm | ≤ 2,0 - 6,0 ps/nm.Km | |
| 1565 - 1625 nm | ≤ 4,5 - 11,2 ps/nm.Km | |
| Dispersion in 1550 nm | 4 ps/nm.Km | |
| PMD single fiber | ≤ 0,10 ps/√Km | |
| PMDq (Q=0,01%, N=20) | ≤ 0,08 ps/√Km | |

| Geometric parameters | |
|--------------------------------------|-------------------------|
| Modal field diameter 1550 nm | 9,60 ± 0,40 μm |
| Effective area | 65 - 72 μm ² |
| Concentricity error core/cladding | ≤ 0,6 μm |
| Cladding diameter | 125,0 ± 1,0 μm |
| Concentricity error coating/cladding | ≤ 12 μm |
| Non-Circularity cladding | ≤ 1,0 % |
| Coating diameter | 247 ± 7,0 μm |

Mechanical and environmental specifications

| Mechanical specifications | |
|---------------------------------|----------------------------|
| Proof test level | 1,0 % (100 kpsi, 0,70 GPa) |
| Minimum bending radius | 30 mm |
| Macrobend Induced attenuation: | |
| 1 turn over 32 mm at 1550 nm | ≤ 0,50 dB |
| 100 turns over 50 mm at 1550 nm | ≤ 0,05 dB |
| 100 turns over 60 mm at 1625 nm | ≤ 0,05 dB |
| Peeling force (F) (peak value) | 1,3 N ≤ F ≤ 8,9 N |
| Peeling force (F) (mean value) | 1 N ≤ F ≤ 3 N |
| Dynamic fatigue (nd) | 20 (typical value) |
| Static fatigue (ns) | 30 (typical value) |

| Environmental specifications | |
|---|--------------|
| Induced attenuation at 1550 and 1625 nm: | |
| -60°C ~ +85°C temperature cycle | ≤ 0,05 dE/Km |
| -10°C ~ +85°C/ until 98% RH. Temperature and humidity cycle | ≤ 0,05 dE/Km |
| +85°C +/- 2° C. Dry heat | ≤ 0,05 dB/Km |
| +23°C +/- 2° C. Water Immersion | ≤ 0,05 dB/Km |

Typical values

| Refractive index of effective group | |
|-------------------------------------|--------|
| 1550 nm | 1,4691 |

Contact Information

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