

This specification corresponds to fibers optimized for transmission in the wavelengths of 1310 nm to 1550 nm, according to subcategory G.652.B of ITU-T. The core comprises doped silicon dioxide, surrounded by a silicon dioxide coating, the coating is composed of two layers of acrylate cured by UV.

Optical and geometric specifications

| Optical parameters | Fiber not wired | Wired fiber | Geometric parameters | |
|--|--------------------------------|--------------|--------------------------------------|-----------------|
| Attenuation at 1310 nm | ≤ 0,35 dB/Km | ≤ 0,37 dB/Km | Modal field diameter 1310 nm | 9,20 ± 0,40 μm |
| Attenuation at 1550 nm | ≤ 0,21 dB/Km | ≤ 0,24 dB/Km | Modal field diameter 1550 nm | 10,50 ± 0,80 μm |
| Attenuation at 1285-1330 nm | ≤ 0,40 dB/Km | | Concentricity error core/cladding | ≤ 0,4 μm |
| Attenuation at 1525 -1575 nm | ≤ 0,25 dB/Km | | Cladding diameter | 125,0 ± 1,0 μm |
| Max. discontinuity point in 1310 y 1550 nm | ≤ 0,05 dB | | Concentricity error coating/cladding | ≤ 12 μm |
| Cutoff wavelength | 1100 - 1300 nm | ≤ 1260 nm | Non-Circularity coating | ≤ 10 % |
| Zero dispersion point | 1300-1324 nm | | Coating diameter (colored) | 250 ± 15 μm |
| Zero dispersion slope | ≤ 0,092 ps/nm ² .Km | | | |
| Chromatic Dispersion in 1285 -1330 nm | ≤ 3,5 ps/nm.Km | | | |
| Chromatic Dispersion in 1270 - 1350 nm | ≤ 5,3 ps/nm.Km | | | |
| Chromatic Dispersion in 1550 nm | ≤ 18,0 ps/nm.Km | | | |
| PMD single fiber | ≤ 0,15 ps/√Km | | | |
| PMDq (Q=0,01%, N=20) | ≤ 0,10 ps/√Km | | | |

Mechanical and environmental specifications

| Mechanical specifications | |
|---------------------------------|----------------------------|
| Proof test level | 1,2 % (120 kpsi, 0,86 GPa) |
| Minimum bending radius | 30 mm |
| Macrobend Induced attenuation: | |
| 1 turn over 32 mm at 1550 nm | ≤ 0,50 dB |
| 100 turns over 60 mm at 1550 nm | ≤ 0,05 dB |
| Peeling force (F) (peak value) | 1,3 N ≤ F ≤ 8,9 |
| Peeling force (F) (mean value) | 1 N ≤ F ≤ 5 |
| Dynamic fatigue (nd) | 20 (typical value) |
| Static fatigue (ns) | 20 (typical value) |

| Environmental specifications | |
|---|--------------|
| Induced attenuation at 1310, 1550 and 1625 nm: | |
| -60°C ~ +85°C temperature cycle | ≤ 0,05 dE/Km |
| +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 | |
|-------------------------------------|-------|
| 1310 nm | 1,466 |
| 1550 nm | 1,467 |

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