

This specification corresponds to fibers optimized for transmission in the wavelengths of 1310 nm to 1550 nm, including the region of 1383 nm and according to subcategory G.652.D 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
Attenuation at 1310 nm	≤ 0,35 dB/Km	≤ 0,37 dB/Km
Attenuation at 1383 nm	≤ 0,35 dB/Km	≤ 0,37 dB/Km
Attenuation at 1550 nm	≤ 0,21 dB/Km	≤ 0,24 dB/Km
Attenuation at 1625 nm	≤ 0,23 dB/Km	
Attenuation at 1285-1625 nm	≤ 0,40 dB/Km	
Max. discontinuity point in 1310 y 1550 nm	≤ 0,05 dB	
Cutoff wavelength	1100 - 1320 nm	≤ 1260 nm
Zero dispersion point	1300-1324 nm	
Zero dispersion slope	≤ 0,090 ps/nm ² .Km	
Chromatic Dispersion in 1285 –1330 nm	≤ 3,5 ps/nm.Km	
Chromatic Dispersion in 1550 nm	≤ 18,0 ps/nm.Km	
Chromatic Dispersion in 1625 nm	≤ 22,0 ps/nm.Km	
PMD single fiber	≤ 0,15 ps/√Km	
PMDq (Q=0,01%, N=20)	≤ 0,08 ps/√Km	

Geometric parameters	
Modal field diameter 1310 nm	9,20 ± 0,40 μm
Modal field diameter 1550 nm	10,40 ± 0,50 μm
Concentricity error core/cladding	≤ 0,4 μm
Cladding diameter	125,0 ± 0,50 μm
Concentricity error coating/cladding	≤ 12 μm
Non-Circularity coating	≤ 10 %
Coating diameter (colored)	250 ± 15 μm

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 50 mm at 1310 nm	≤ 0,05 dB
100 turns over 50 mm at 1550 nm	≤ 0,10 dB
100 turns over 60 mm at 1625 nm	≤ 0,50 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
-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

1310 / 1383 nm	1,466
1550 nm	1,467
1625 nm	1,470

Contact Information

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