

Singlemode Omnilit™ Fiber Product Information

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The Omnilit™ Fiber support ITU-T G.652C/D specifications and the attenuation at 1385nm less than that at 1310nm. This specification conforms to the requirement of IEC 60793 B1.3.

OPTICAL CHARACTERISTICS

Characteristics	Conditions	Specified Values	Unit
Attenuation Coefficient	1310 nm	≤ 0.34	[dB/km]
	1385 nm	≤ 0.31*	[dB/km]
	1550 nm	≤ 0.21	[dB/km]
	1625 nm	≤ 0.24	[dB/km]

The maximum attenuation between 1285 to 1330 nm is within 0.05 dB/km of the attenuation at 1310 nm.

The maximum attenuation between 1525 to 1575 nm is within 0.05 dB/km of the attenuation at 1550 nm.

*Attenuation increases due to hydrogen aging at this wavelength will be ≤ 0.01 dB/km and evaluated in accordance with the IEC 60793-2 test procedure.

Mode Field Diameter	1310 nm	9.2 ± 0.4	[μm]
	1550 nm	10.4 ± 0.5	[μm]
Fiber Cut-Off Wavelength		1150 ~ 1330	[nm]
Cable Cut-Off Wavelength		<1260	[nm]
Zero Dispersion Wavelength		1300 ~ 1322	[nm]
Zero Dispersion Slope		≤ 0.092	[ps/(nm ² ·km)]
Dispersion Coefficient	1285 – 1330 nm	≤ 3.1	[ps/(nm·km)]
	1550 nm	≤ 18	[ps/(nm·km)]
	1625 nm	≤ 22	[ps/(nm·km)]
Fiber Polarization Mode Dispersion (PMD)		≤ 0.2	[ps/√km]

BACKSCATTER CHARACTERISTICS

Attenuation Directional Uniformity		≤ 0.03	[dB/km]
Attenuation Uniformity		≤ 0.05	[dB]
Reflections		Not Allowed	
Group Index of Refraction	1310 nm	1.467	
	1550 nm	1.468	

PHYSICAL CHARACTERISTICS

Core / Cladding Concentricity Error		≤ 0.8	[μm]
Cladding Diameter		125 ± 1	[μm]
Cladding Non-Circularity		≤ 2.0	[%]
Coating Diameter (UV Curable Acrylate)		245 ± 10	[μm]
Clad/Coat Concentricity Error		≤ 6	[μm]
Fiber curl		≤ 4	[m]
Proof Test		100	[Kpsi]
Bend Induced Attenuation at 1625 nm (100 turns around a mandrel of 60 mm diameter)		≤ 0.5	[dB]
Fatigue Resistance Parameter (nd)		20	
Average Coating Strip Force / Peak Coating Strip Force Length (Typical)		≥ 105 / 140 (1.4)	[g] / (N)
		12.6 ~ 25.2	[Km]

ENVIRONMENTAL CHARACTERISTICS

Temperature Dependence at 1310 nm and 1550 nm Induced Attenuation – 60°C to +85°C		≤ 0.05	[dB/km]
Watersoak Dependence at 1310 nm and 1550 nm Induced Attenuation at 20°C for 30 days		≤ 0.05	[dB/km]
Damp Heat Dependence at 1310 nm and 1550 nm Induced Attenuation at 85°C, 85%R.H., 30 days		≤ 0.05	[dB/km]

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