

9/125/500 μ m Singlemode Optical Fiber

Product Information

Issue Date: 2004/5/25

This specification conforms to the requirement of IEC 60793 B1.1 and ITU-T G.652.A/B.

OPTICAL CHARACTERISTICS

Characteristics	Conditions	Specified Values	Unit
Attenuation Coefficient	1310 nm	≤ 0.34	[dB/km]
	1285 – 1330 nm	≤ 0.36	[dB/km]
	1550 nm	≤ 0.21	[dB/km]
Mode Field Diameter	1310 nm	8.7 ~ 9.7	[μ m]
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)]
PMD		≤ 0.2	[ps/ \sqrt 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	[μ m]
Cladding Diameter		125 \pm 1	[μ m]
Cladding Non-Circularity		≤ 2.0	[%]
Coating Diameter (UV Curable Acrylate)		495 \pm 15	[μ m]
Clad/Coat Concentricity Error		≤ 12	[μ m]
Fiber curl		≥ 4	[m]
Proof Test		100	[kpsi]
Bend Induced Attenuation at 1550 nm (100 turns around a mandrel of 60 mm diameter)		≤ 0.1	[dB]
Fatigue Resistance Parameter (nd)		20	
Coating Strip Force (Typical)		130 (1.4)	[g] / (N)
Length (Typical)		6.6	[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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