

Optical characteristics of TeraCap Zero water peak Singlemode fiber



TeraCap™ 9/125μm (G.652D Zero Water Peak)		
Attenuation	@1310nm	≤ 0.34dB/km
	@1383nm	≤ 0.34dB/km (After H ₂ aging)
	@1550nm	≤ 0.20dB/km
	@1625nm	≤ 0.24dB/km
Dispersion coefficient	1285~1340nm	≤ 3.4 ps/nm . km
	1285~1340nm	≥ -3.4 ps/nm . km
	@1550nm	≤ 18 ps/nm . km
	@1625nm	≤ 22 ps/nm . km
Zero dispersion wavelength	1300~1324nm	
Zero dispersion slope	≤ 0.091 ps/nm ² . km	
Polarization Mode Dispersion (PMD)	Maximum Individual Fiber	≤ 0.1ps/√km
	Design Link Value	≤ 0.06ps/√km
Cut-off wavelength	1180~1330nm	
Mode field diameter(MFD)	@1310nm	8.7~ 9.5μm
	@1550nm	9.9~ 10.9μm
Group Index of Refraction	@1310nm	1.466
	@1550nm	1.467

Backscatter Characteristics

(@1310nm/@1550nm)

Step(Mean of bidirectional measurement)	≤ 0.05dB
Irregularities over fiber length and point discontinuity	≤ 0.05dB
Difference backscatter coefficient(Bidirectional measurement)	≤ 0.03dB/km

Geometrical Characteristics

Core diameter	9μm
Core noncircularity	≤ 6.0%
Cladding diameter	125±0.7μm
Cladding noncircularity	≤ 1.0%
Primary Coating diameter	242±7μm
Core/Cladding concentricity error	≤ 0.6μm

Environmental Characteristics

(@1310nm/@1550nm)

Attenuation at temperature cycling Δα (-60°C~ + 85°C)	≤ 0.05dB/km
Attenuation at temperature-humidity cycling (-10°C~ + 85°C . 98% R.H.)	≤ 0.05dB/km
Attenuation at damp heat dependence (85°C . 85% R.H. . 30days)	≤ 0.05dB/km
Attenuation at watersoak dependence (23°C . 30days)	≤ 0.05dB/km

Mechanical Characteristics

Proof test (off line)	≥ 9.0N (≥ 100kpsi)	
Attenuation at bending dependence @1550nm	1 turn,32mm diameter	≤ 0.05dB
	100 turn,60mm diameter	≤ 0.05dB
Coating strip force(Typical)	1.7N	
Dyanamics stress corrosion susceptibility parameter(η _s , Typical)	≥ 20	