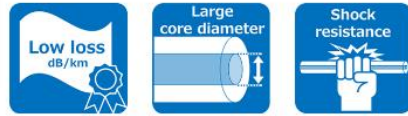




G.654.D

Z-PLUS Fiber™ 130

Advanced Pure Silica Core Single Mode Optical Fiber



- **Ultra-low attenuation of 0.148 dB/km or 0.152 dB/km, and large effective area of 130 μm^2 typical**
- **For transoceanic (6,000 – 12,000 km) systems**

General

Effective Area

Typical effective area at 1550 nm 130 μm^2

Attenuation

Typical attenuation at 1550 nm LL: 0.152 dB/km
 ULL: 0.148 dB/km

Core Glass

Pure Silica

Geometrical Characteristics

Glass Geometry

Core-cladding concentricity error $\leq 0.8 \mu\text{m}$
 Cladding diameter $125.0 \pm 1.0 \mu\text{m}$
 Cladding non-circularity $\leq 2.0 \%$

Coating Geometry

Coating diameter (Natural) $245 \pm 10 \mu\text{m}$
 Coating diameter (Colored) $250 \pm 15 \mu\text{m}$
 Coating-cladding concentricity error $\leq 12 \mu\text{m}$

Optical Characteristics

Attenuation

Attenuation at 1550 nm (Individual) LL: $\leq 0.160 \text{ dB/km}$
 ULL: $\leq 0.156 \text{ dB/km}$

Attenuation at 1550 nm (Average in total quantity)^{*1)} LL: $0.152 \pm 0.003 \text{ dB/km}$
 ULL: $0.148 \pm 0.003 \text{ dB/km}$

Point discontinuity at 1550 nm $\leq 0.05 \text{ dB}$

Effective Area

Effective area at 1550 nm $130 \pm 15 \mu\text{m}^2$

Chromatic Dispersion

Chromatic dispersion at 1550 nm $\leq 22 \text{ ps/nm/km}$
 Chromatic dispersion slope at 1550 nm $\leq 0.070 \text{ ps/nm}^2/\text{km}$

Cable Cutoff Wavelength (λ_{cc})

λ_{cc} $\leq 1530 \text{ nm}$

Polarization Mode Dispersion (PMD)

Individual fiber PMD ^{*2)} $\leq 0.1 \text{ ps/r-km}$

Mechanical Characteristics

Proof Test

Proof stress level 2.0%
 (200 kpsi = 1.43 GPa)

Macrobending Loss

Bending radius	Number of turns	Wavelength	Induced Attenuation
30 mm	100	1550 nm	$\leq 2.0 \text{ dB}$
30 mm	100	1625 nm	$\leq 2.0 \text{ dB}$

Packaging

Delivery Length

5 – 100 km

*1) Average attenuation will be applied only to a batch with the total quantity of 4,000 km or more.

*2) Measured on fiber with free tension. PMD values may change when fiber is cabled. This PMD value will be achieved when cabled properly.

This document states a standard specification.
 Upon request, alternative value offerings will be available.