SUMITOMO ELECTRIC
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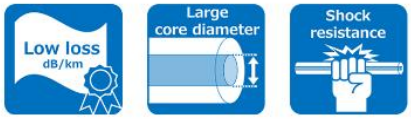
G.654.D

Z-PLUS Fiber™ 130

Advanced Pure Silica Core Single Mode Optical Fiber



- **Ultra-low attenuation of 0.147 dB/km or 0.152 dB/km, and large effective area of 130 µm² typical**
- **For transoceanic (6,000 – 12,000 km) systems**

General

Effective Area

Typical effective area at 1550 nm	130 µm²

Attenuation

Typical attenuation at 1550 nm	LL: 0.152 dB/km ULL: 0.147 dB/km

Core Glass

	Pure Silica

Optical Characteristics

Attenuation

Attenuation at 1550 nm (Individual)	LL: ≤ 0.160 dB/km ULL: ≤ 0.156 dB/km
Attenuation at 1550 nm (Average in total quantity) *1)	LL: 0.152 ± 0.003 dB/km ULL: 0.147 ± 0.003 dB/km
Point discontinuity at 1550 nm	≤ 0.05 dB

Effective Area

Effective area at 1550 nm	130 ± 15 µm²

Chromatic Dispersion

Chromatic dispersion at 1550 nm	≤ 22 ps/nm/km
Chromatic dispersion slope at 1550 nm	≤ 0.070 ps/nm²/km

Cable Cutoff Wavelength (λcc)

λcc	≤ 1530 nm

Polarization Mode Dispersion (PMD)

Individual fiber PMD *2)	≤ 0.1 ps/r-km

Geometrical Characteristics

Glass Geometry

Core-cladding concentricity error	≤ 0.8 µm
Cladding diameter	125.0 ± 1.0 µm
Cladding non-circularity	≤ 2.0 %

Coating Geometry

Coating diameter (Natural)	245 ± 10 µm
Coating diameter (Colored)	250 ± 15 µm
Coating-cladding concentricity error	≤ 12 µm

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	≤ 2.0 dB
30 mm	100	1625 nm	≤ 2.0 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.

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