SUMITOMO ELECTRIC
Connect with Innovation

G.654.B, G.654.D

Z-PLUS Fiber™ULL

Advanced Pure Silica Core Single Mode Optical Fiber

Low loss dB/km

Large core diameter

Shock resistance
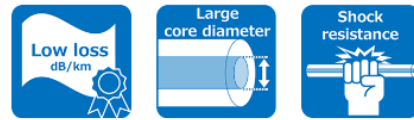
- **Ultra-low attenuation of 0.150 dB/km and large effective area of 112 µm² typical**
- **For middle-reach to transoceanic (1,000 – 10,000 km) and long-reach unrepeatered (- 600 km) systems**
- **200 µm coating diameter available**

General

Effective Area
Typical effective area at 1550 nm	112 µm²

Attenuation
Typical attenuation at 1550 nm	0.150 dB/km

Core glass
	Pure Silica

Optical Characteristics

Attenuation
Attenuation at 1550 nm (Average in total quantity)	$\leq$ 0.153 dB/km
Point discontinuity at 1550 nm	$\leq$ 0.05 dB

Effective Area
Effective area at 1550 nm	112 ± 12 µm²

Chromatic Dispersion
Chromatic dispersion at 1550 nm	$\leq$ 22 ps/nm/km
Chromatic dispersion slope at 1550 nm	$\leq$ 0.070 ps/nm²/km

Cable Cutoff Wavelength (λcc)
λcc	$\leq$ 1530 nm

Polarization Mode Dispersion (PMD)
Individual fiber PMD[*1)]	$\leq$ 0.1 ps/r-km

Geometrical Characteristics

Glass Geometry
Core - cladding concentricity error	$\leq$ 0.8 µm
Cladding diameter	125.0 ± 1.0 µm
Cladding non-circularity	$\leq$ 2.0 %

Coating Geometry
Coating diameter (Natural)	245 ± 10 µm
Coating diameter (Colored)	250 ± 15 µm
200 µm coating diameter	Available
Coating-cladding concentricity error	$\leq$ 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	$\leq$ 0.50 dB
30 mm	100	1625 nm	$\leq$ 0.50 dB

Packaging

Delivery Length
	5 – 100 km

*1) 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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