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# **Z-PLUS Fiber™ 130**

Advanced Pure Silica Core Single Mode Optical Fiber







- Ultra-low attenuation of 0.150 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	0.152 dB/km
Core Glass	
	Pure Silica

## **Optical Characteristics**

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Attenuation at 1550 nm	0.152 ± 0.003
(Average in total quantity)	dB/km
Point discontinuity at 1550 nm	≤ 0.05 dB

### Effective Area

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

### Chromatic Dispersion

 $\begin{array}{lll} \hbox{Chromatic dispersion at 1550 nm} & \leq 22 \ ps/nm/km \\ \hbox{Chromatic dispersion slope} & \leq 0.070 \\ \hbox{at 1550 nm} & ps/nm^2/km \\ \end{array}$ 

#### Cable Cutoff Wavelength (λcc)

 $\lambda cc \leq 1530 \text{ nm}$ 

#### Polarization Mode Dispersion (PMD)

Individual fiber PMD\*1)  $\leq 0.1 \text{ ps/r-km}$ 

### **Geometrical Characteristics**

#### Glass Geometry

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Core - cladding concentricity error	≤ <b>0.8</b> µm
Cladding diameter	$125.0 \pm 1.0  \mu m$
Cladding non-circularity	≤ 2.0 %

#### Coating Geometry

Coating acometry	
Coating diameter (Natural)	245 ± 10 µm
Coating diameter (Colored)	$250 \pm 15  \mu m$
Coating-cladding concentricity	≤ 12 µm
error	

## **Mechanical Characteristics**

### Proof Test

1 1001 1030	
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 dB
30 mm	100	1625 nm	$\leq$ 2.0 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.