Z-PLUS Fiber™

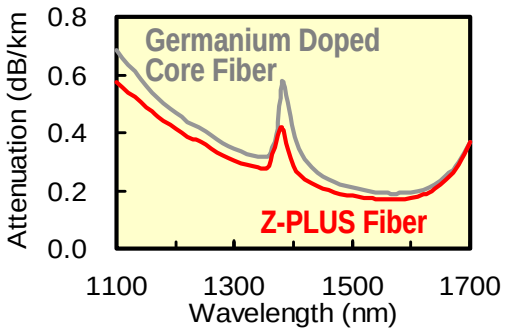
Enhanced Pure Silica Core Fiber

Sumitomo Electric Industries offers Z-PLUS Fiber™ (Enhanced Pure Silica Core Fiber), which has a large effective area (Aeff). This allows the launch of a high power signal, while keeping its low attenuation characteristics. Its optical properties are achieved through use of pure silica core with a fluorine doped silica cladding. Z-PLUS Fiber is the best solution for repeaterless submarine DWDM systems.

Advantages

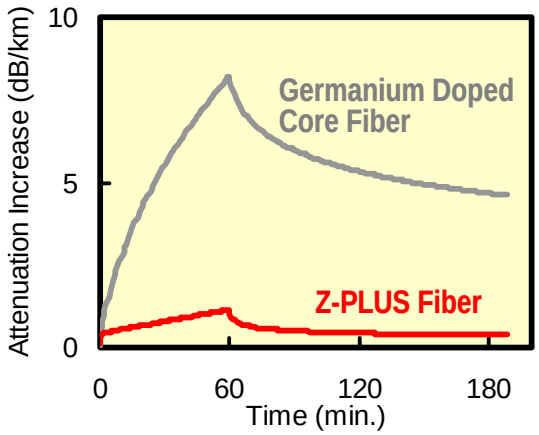
- ✓ ***Large effective area (Aeff)***
- ✓ ***Ultra low non-linearity***
- ✓ ***Lowest attenuation***
- ✓ ***Stability against eminent hydrogen***
- ✓ ***Excellent radiation resistance***

Typical Spectral Attenuation



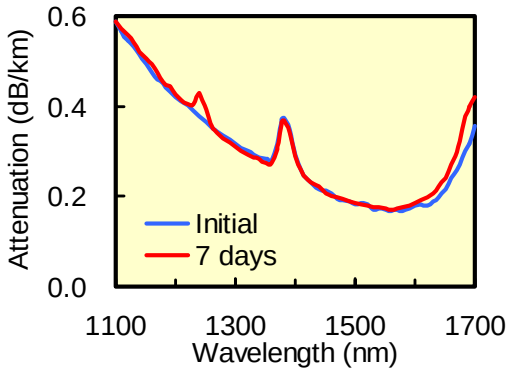
Radiation Resistance Characteristics

λ =1550 nm
γ Ray Dose Rate=1000 Gy/60 min.
Irradiation Time=60 min.



Hydrogen Aging Characteristics

1% Hydrogen Exposure
Room Temperature



Product Information (Typical Values)

1. Geometrical Characteristics:		
	Effective area (Aeff)	110 μm²
	Non-linear refractive index	2.8
	Cladding diameter	125 μm
	Primary coating diameter (material)	245 μm (UV curable acrylate)
2. Optical Characteristics:		
	Attenuation at 1550 nm	0.168 dB/km
	Chromatic dispersion at 1550 nm	20.5 ps/nm/km
	Dispersion slope at 1550 nm	0.059 ps/nm²/km
	Cut-off wavelength (λc)	1460 nm
	Polarization mode dispersion	0.05 ps/ √km
3. Mechanical Characteristics:		
	Fiber proof test level	2.0 % (1.43 GPa=208 kpsi)

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