

## Polarization maintaining fiber (PMF)

### PM15G-80

Oelabs polarization maintaining fiber (PMF) is specially designed for fiber optical gyroscopes (FOGs) and polarization-sensitive components applications. This kind of fiber exhibits extremely low attenuation and excellent birefringence characteristics, and uses in a variety of demanding applications.

#### Application

- ❖ Fiber optical gyroscopes (FOGs)
- ❖ Polarization maintaining fused- fiber couplers
- ❖ Polarization-sensitive components
- ❖ High performance transmission lasers pigtails
- ❖ Polarization- based sensors.

#### Characteristics

- ❖ Short beat length
- ❖ Extremely high birefringence
- ❖ Excellent polarization maintaining properties
- ❖ Tight geometric tolerances and very low attenuation
- ❖ Low bending-induced attenuation
- ❖ Tight tolerance, dual-layer, and UV-Acrylate coating
- ❖ High environmental stability and reliability



#### Specification

Parameter	Unit	Specification	
Fiber Type		PM15G-80-U16	PM15G-80-U13
<b>Optical Properties</b>			
Operating Wavelength	nm	1550	
Cut-off Wavelength	nm	1290-1520	
Mode Field Diameter	µm	6.5 ± 1.0 @1550nm	
Attenuation	dB/km	≤ 0.8@1550nm	
Beat Length	mm	≤ 3.5@1550nm	
Typical Crosstalk	dB/km	≤ -22 @1550nm	
<b>Geometric Properties</b>			
Cladding Diameter	µm	80.0 ± 1.0	
Coating Type	--	Dual-layer; UV-Acrylate	
Coating Diameter	µm	170 ± 5	135 ± 3
Cladding non-circularity	%	≤ 2.0	
Core/Cladding Offset	µm	≤ 1.0	
<b>Environmental and Mechanical</b>			
Operating temperature range	°C	- 45 to + 85 °C	
Proof test level (standard)	kpsi	100	