



## Verrillon® VPZ600 Series Fibers

Single-Polarization (PZ) fibers propagate one, and only one polarization state of the fundamental mode. As opposed to standard and polarization-maintaining single-mode fibers, PZ fibers do not suffer from polarization cross-talk, which makes them highly desirable for applications such as fiber optic gyroscopes, current sensors, coherent communications and fiber lasers. AFL's unique patented PZ Fiber design offers very broad polarizing bandwidth (~200 nm), high extinction ratio (>30 dB), low attenuation and does not require bending to operate. Because of its circular core design, users can routinely splice, connect and integrate AFL's PZ fiber into their sensing and communications applications.

### Features

- 1550 nm polarizing wavelength, > 30 dB extinction ratio
- Round core
- Elliptical Clad design is unique among the few polarizing fibers available.
- Available in 125 μm clad diameter
- MFD compatible with standard SMF for minimal splice loss
- Replace expensive polarizing optics with a small coil of PZ fiber
- Other polarizing wavelengths available

### Applications

- Fiber optic gyroscopes
- In-line polarizers
- Fiber lasers
- Current sensors
- Super luminescent sources
- Fiber pigtails

### Specifications

<b>PART NO.</b>	<b>PZF-1-A-125-2</b>
Description	125/245 Dual UV Acrylate coated, Single Polarization Single-mode Fiber, 1550 nm Operating Wavelength
<b>PARAMETER</b>	<b>VALUE</b>
<b>Material</b>	
Coating	Dual UV Acrylate
Stress-inducing Design	Elliptical Clad
<b>Geometry</b>	
Clad Diameter (μm)	125 ± 2
Core/Clad Offset (μm)	≤ 1.5
Combined Coating Diameter (μm)	245 ± 15
<b>Optical</b>	
NA (nominal)	0.12
Attenuation @ 1550 nm (dB/m)	≤ 0.05
Mode Field Diameter <sup>1</sup> @ 1550 nm (μm)	10 ± 1.0
Polarization Extinction Ratio <sup>2</sup> (dB)	≥ 30
<b>Mechanical</b>	
Proof Test (kpsi)	≥ 100

<sup>1</sup> Petermann II Definition    <sup>2</sup> Measured on a 5 m loose coil