Verrillon®
VSS200 Series Single-mode Fiber

Verrillon VSS200 Series 125/155 µm Polyimide Fiber is a high numerical aperture (NA) single-mode fiber designed for a wide range of applications including sensing, illumination and communications. The high-temperature polyimide coating allows this fiber to be used in applications up to 300°C. Due to its 0.21 numerical aperture, this fiber exhibits exceptionally low bend-loss. The high germanium content also provides photosensitivity to UV light, useful in Fiber Bragg Grating (FBG) writing for sensing applications. In addition to polyimide, this fiber is also available in all Verrillon coatings and coating combinations for low and mid-temperature range.

Features

- High Numerical Aperture
- Extremely low bend loss
- High temperature coating up to 300°C
- Available in low and mid-temperature coatings
- Suitable for FBG writing due its high photosensitivity

Applications

- Communications Networks
- Optical fused devices
- Illumination
- Sensors
- Fiber pigtails

Specifications

PART NO.	**SMF-37-P-125-3**
Description	125/155 µm Polyimide Single-mode Fiber, 0.21 NA, 100 kpsi
PARAMETER	**VALUE**
Material	
Coating	Polyimide
Geometry	
Clad Diameter (µm)	125 ± 2
Clad Non-Circularity (%)	≤ 2.0
Core/Clad Offset (µm)	≤ 1.0
Coat Diameter (µm)	155 ± 5
Polyimide Coating Concentricity (%) [1]	≥ 80
Optical	
NA (nominal)	0.21
Attenuation @ 1310 nm (dB/km) [2]	≤ 1.2
Attenuation @ 1550 nm (dB/km) [2]	≤ 0.9
Cutoff Wavelength (nm)	≤1290
Mode Field Diameter @ 1310 nm (µm) [3]	5.1 ± 1.0
Mode Field Diameter @ 1550 nm (µm)[3]	5.8 ± 1.0
Short-term Bend Loss (mm)	≥ 10
Long-term Bend Loss (mm)	≥ 17
Mechanical	
Proof Test (kpsi)	≥ 100
Operating Temperature (°C)	-65 to + 300

[1] Measured as (Min Wall / Max Wall) x 100
[2] Measured on Zero Tension spool
[3] Petermann II Definition