



SMF-28-10

Description

Thorlabs' single mode SMF-28e fiber jacketed with 900 μm yellow Hytrel tubing delivers high performance across a broad spectral range in the telecom region, and also features exceptional core / clad concentricity specifications.

Specifications

Geometrical & Mechanical	
Core Diameter	8.2 μm
Cladding Diameter	125 \pm 0.7 μm
Coating Diameter	245 \pm 5 μm
Core-Clad Concentricity	<0.5 μm
Coating-Clad Concentricity	<12 μm
Fiber Curl	\geq 4.0 m Radius of Curvature
Operating Temperature	-60 to 85 $^{\circ}\text{C}$
Proof Test Level (245 coat)	\geq 100 kpsi (0.7 GN/m ²)
Fiber Length	10 meters



Optical	
Numerical Aperture (nominal)	0.14
Attenuation*	0.33 - 0.35 dB/km @ 1310 nm 0.31 - 0.35 dB/km @ 1383 nm** 0.21 - 0.24 dB/km @ 1490 nm 0.19 - 0.20 dB/km @ 1550 nm 0.20 - 0.23 dB/km @ 1625 nm
Operating Wavelength	1310 - 1625 nm
Mode Field Diameter	9.2 \pm 0.4 μm @ 1310 nm 10.4 \pm 0.5 μm @ 1550 nm
Dispersion	\leq 18.0 ps/(nm·km) @ 1550 nm \leq 22.0 ps/(nm·km) @ 1625 nm
Polarization Mode Dispersion, Link Design Value	\leq 0.06 ps/√km
Polarization Mode Dispersion, Maximum Individual Fiber	\leq 0.2 ps/√km
Bend Loss per Turn on 32 mm Mandrel	\leq 0.03 dB @ 1550 nm

*Maximum specified attenuation value available within the stated ranges.

** Attenuation values at this wavelength represent post-hydrogen aging performance.