







9 Micron Single-Mode Bare Optical Fiber – ITU-T G.652.D/G.654.E/G.655 Compliant for High-Speed Transmission

Product Overview

Winner single-mode bare optical fiber is engineered to meet or exceed ITU-T standards including G.652.D, G.654.E, and G.655 specifications. With a standard 9/125 μ m core/cladding geometry and a 250 μ m UV-cured dual acrylate coating, this fiber ensures minimal signal loss and distortion across the full operational spectrum from 1260 nm to 1625 nm.

The fiber's low cladding roundness deviation (\leq 1.0%) and core-cladding concentricity deviation (\leq 0.6 µm) ensure optimal light transmission and reduced splice loss. The cutoff wavelength of \leq 1260 nm guarantees true single-mode operation, making it suitable for various deployment scenarios. Its operating temperature range of -40°C to +85°C provides durability in extreme environments.

Technical Specifications

Brand Name	Winner
Model Number	G.652.D / G.654.E / G.655 / G.657.A1 / G.657.A2 / B3
Fiber Type	Single-Mode





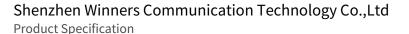




Core Diameter	9 μm
Cladding Diameter	125 ± 0.7 μm
Coating Diameter	250 μm
Cladding Roundness Deviation	≤1.0%
Core/Cladding Concentricity Deviation	≤0.6 μm
Cut-off Wavelength (λ_c)	≤1260 nm
Attenuation	<0.33 dB/km @1310 nm <0.34 dB/km @1383 nm <0.20 dB/km @1550 nm <0.24 dB/km @1625 nm
Warpage	≥4 m
Operating Temperature Range	-40°C to +85°C

Applications

- Data centers requiring high-bandwidth, low-latency connections for 10G/100G
 Ethernet applications (G.652.D).
- Long-haul telecommunications networks demanding precise dispersion management for efficient long-distance signal transmission (G.655).











- FTTH deployments where high warpage tolerance and stable connectivity are essential (G.654.E).
- 5G communication systems needing robust performance under extreme environmental conditions.

Standards & Compatibility

Winner single-mode fiber complies with ITU-T G.652.D, G.654.E, G.655, IEC 60793-2-50, and Telcordia GR-20-CORE. It is fully compatible with standard SMF connectors (LC, SC, FC), fusion splicers, and all major transceiver standards including 10GBASE-LR, 100GBASE-LR4, and OTU4. For bend-sensitive applications, G.657.A1/A2 variants offer enhanced macrobend performance down to 7.5 mm radius.