

ITU - T G.657.B3 Fiber – Sterlite® BOW-LITE™ SUPER Single Mode Optical Fiber

Product Description

Sterlite® BOW-LITE™ SUPER Single Mode Optical Fiber is an optical fiber with ultra-low bend sensitivity.

Product Application

Sterlite® BOW-LITE™ SUPER is ideal for market requirement of access and fiber to the Home (FTTH) applications particularly in-building use.

Product Benefits

Sterlite® BOW-LITE™ SUPER is an enhanced low bend sensitive single mode optical fiber optimized for use in the 1310, 1550 and 1625 nm windows.

Product Specifications

Attenuation	≤ 0.35 dB/km at 1310nm ≤ 0.35 dB/km at 1383nm# ≤ 0.21 dB/km at 1550nm ≤ 0.23 dB/km at 1625nm
Mode field diameter	8.6 ± 0.4 μ m at 1310nm
Cable cutoff wavelength	≤ 1260 nm
Zero dispersion wavelength	1300 nm to 1350 nm
Zero dispersion slope	≤ 0.092 ps/nm ² .km
Dispersion at 1550 nm	≤ 18.0 ps/nm.km
PMD Individual Fiber*, PMDLDV	≤ 0.1 ps/√km, ≤ 0.06 ps/√km
Cladding diameter**	125 ± 0.7 μ m
Core-clad concentricity error**	≤ 0.5 μ m
Cladding non-circularity**	≤ 0.7 %
Coating diameter(uncoloured)	242 ± 5 μ m
Coating-cladding concentricity error	≤ 10 μ m

* Individual PMD values may change when cabled

After hydrogen aging according to IEC-60793-2-50 regarding the B1.3 fiber category

**Geometrical Specifications for connectivity applications are available upon request.

Mechanical Characteristics

Proof Test Levels	≥ 100 kpsi (0.7GN/m ²). This is equivalent to 1% strain
Coating strip force(Force to mechanically strip the dual coating)	≥ 1.3 N (0.3lbf) and ≤ 5.0 N (1.1lbf)
Fiber curl	≥ 4 m

Macro bend loss: The maximum attenuation with bending does not exceed the specified values with the following deployment conditions

Deployment condition	Wavelength	Induced attenuation
1 turn,10 mm radius	1550 nm	≤ 0.03 dB
1 turn,10 mm radius	1625 nm	≤ 0.10 dB
1 turn,7.5 mm radius	1550 nm	≤ 0.08 dB
1 turn,7.5 mm radius	1625 nm	≤ 0.25 dB
1 turn,5 mm radius	1550 nm	≤ 0.15 dB (Typical ≤ 0.10 dB)
1 turn,5 mm radius	1625 nm	≤ 0.45 dB (Typical ≤ 0.30 dB)



Environmental Characteristics

Temperature dependence Induced attenuation, -60°C to +85°C at 1310, 1550, 1625 nm	≤ 0.05 dB/km
Temperature humidity cycling Induced attenuation, -10°C to +85°C and 95% relative humidity at 1310, 1550, 1625 nm	≤ 0.05 dB/km
Water immersion, 30 days Induced attenuation due to water immersion at 23±2°C at 1310, 1550, 1625 nm	≤ 0.05 dB/km
High temperature and humidity aging 85°C at 85% RH, 30 days Induced attenuation at 1310, 1550, 1625 nm due to aging	≤ 0.05 dB/km
Accelerated aging (Temperature), 30 day Induced attenuation due to temperature aging at 85±2°C at 1310, 1550, 1625 nm	≤ 0.05 dB/km

Other Performance Characteristics*

Effective group index of refraction	1.4678 at 1310 nm 1.4685 at 1550 nm 1.4689 at 1625 nm
Attenuation in the wavelength region from 1285 - 1330 nm in reference to the attenuation at 1310 nm	≤ 0.03 dB/km
Attenuation in the wavelength region from 1525 - 1575 nm in reference to the attenuation at 1550 nm	≤ 0.02 dB/km
Point discontinuities at 1310 nm & 1550 nm	≤ 0.05 dB
Dynamic fatigue parameter (N _d)	≥ 20
Shipping Length: Standard length per reel available up to 25.2 km	

*Typical values

Manufacturing Process

Sterlite® controls every stage of the manufacturing process so that quality is built in to every meter of fiber, rather than selected out at the end through testing. To ensure the accuracy and precision of the manufacturing process, Sterlite® routinely calibrates and recertifies process equipment and measurement benches against internationally traceable standards from NPL/NIST, and follow test methods compliant with EIA/TIA, CEI-IEC and ITU standards.

International Standards

Sterlite® BOW-LITE™ SUPER complies or exceeds the ITU recommendation G.657.B3 and the IEC 60793-2-50 type B6_b3 Optical Fiber Specification.

Service USP's

- Complete range of optical fiber for terrestrial networks
- World-wide sales support
- Web-based order tracking & customer support
- Specialized technical support

Disclaimer

Sterlite®'s policy of continuous improvement may result in a change in specifications without prior notice. Any warranty of any nature relating to any Sterlite® product is only contained in the written agreement between Sterlite® Technologies Limited and the direct purchaser of such product(s).



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