



STL Bow-Lite 250 Fibre

ITU-T G.657.A1 Single Mode Optical Fibre

Product Description

STL Bow-Lite 250 Single Mode Optical Fibre is an optical fibre with low bend sensitivity and zero water peak attenuation.

Product Application

STL Bow-Lite 250 fibre is ideal for use in access and Fibre To The Home (FTTH) applications, including full spectrum CWDM. This fibre can also be used for regional, metropolitan and local access networks.

Product Benefits

STL Bow-Lite 250 fibre has special characteristics of low bend sensitivity across the O, E, S, C & L-bands (1260-1625 nm) in addition to zero water peak, characterized by the attenuation at 1380-1390 nm being less than the attenuation at 1310nm.

Standard Compliance

STL 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.

Parameters

Optical Parameters		
Attenuation Max. (dB/km)		
1310 nm		≤ 0.34
1383 nm#	#After hydrogen aging according to IEC-60793-2-50 regarding the B-652.D fibre category	≤ 0.34
1550 nm		≤ 0.20
1625 nm		≤ 0.23
Macro bend loss (dB)		
100 turn 25 mm radius	1310nm	≤ 0.03
1 turn 10 mm radius	1550nm	≤ 0.75
10 turns 15 mm radius		≤ 0.25
1 turn 16 mm radius		≤ 0.03
100 turn 25 mm radius		≤ 0.03
1 turn 10 mm radius	1625nm	≤ 1.50
10 turns 15 mm radius		≤ 1.0
100 turn 30 mm radius		≤ 0.03
Mode Field Diameter (μm) at 1310 nm		9.1 ± 0.4
Mode Field Diameter (μm) at 1550 nm		10.4 ± 0.5
Cable cutoff wavelength (nm)		≤ 1260
Zero dispersion wavelength (nm)		1300 to 1324
Dispersion at 1550nm (ps/nm.km)		≤ 17.5
Zero Dispersion Slope (ps/nm ² .km)		≤ 0.090
PMD LDV (ps/√ km)		≤ 0.06
Individual Fibre PMD* (ps/√ km) * Individual PMD values may change when cabled		≤ 0.1
Point of discontinuities 1310nm & 1550nm (dB)		≤ 0.05
Geometrical Parameters		
Cladding Diameter (μm)		125 ± 0.7
Core Clad Concentricity error (μm)		≤ 0.5
Cladding Non-circularity (%)		≤ 0.8
Coating Diameter (uncoloured) (μm)		242 ± 5
Coating Cladding Concentricity error (μm)		≤ 12
Environmental Characteristics		
Temperature dependence	-60°C to +85°C	≤ 0.05 (Induced Attenuation at 1310, 1550, 1625 nm (dB/km))
Temperature humidity cycling	-10°C to +85°C, 95% RH	
Water Immersion	30 days, 23 ± 2°C	
High temperature and humidity aging	30 days 85 ± 2°C, 85% RH	
Accelerated Aging (Temperature)	30 days, 85 ± 2°C	
Mechanical Characteristics		
Proof Testing		≥ 125 (kpsi) (0.86GN/m ²) (This is equivalent to 1.2% strain)
Fibre Curl (m)		≥ 4
Performance Characteristics		
Coating strip force		≥ 1.3 N (0.3 lbf) and ≤ 5.0 N (1.1 lbf)
Dynamic fatigue parameter (N _d)		≥ 20
Effective group index of refraction (Typical Values)		1.4670 at 1310 nm 1.4675 at 1550 nm 1.4680 at 1625 nm
Attenuation in the wavelength region from 1285 - 1330 nm in reference to the attenuation at 1310 nm (dB/km)		≤ 0.03
Attenuation in the wavelength region from 1525 - 1575 nm in reference to the attenuation at 1550 nm (dB/km)		≤ 0.03

01/072023

For additional information please contact your sales representative.

You can also visit our website at www.stl.tech

The information given herein, including drawings, illustrations and schematics are intended for illustration purposes only and is believed to be reliable. However, STL makes no warranties to its accuracy or completeness and disclaims any liability in connection with its use. STL obligations shall be only set forth in STL standard terms and conditions of the sale and in no case, STL be liable for any incidental, indirect or consequential damages arising out of sale, resale, use or misuse of the product. Users of STL products should make their own evaluation to determine the suitability of such each product for the specific application.