



STL Bow-Lite Plus 250 Fibre

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

Product Description

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

Product Application

STL Bow-Lite Plus 250 fibre is ideal for use in access and Fibre To The Home (FTTH) applications, including full spectrum CWDM.

Product Benefits

STL Bow-Lite Plus 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		≤ 0.33
1383 nm [#] #After hydrogen aging according to IEC-60793-2-50 regarding the B-652.D fibre category		≤ 0.31
1550 nm		≤ 0.20
1625 nm		≤ 0.21
Macro bend loss (dB)		
1 turn 10 mm radius	1550nm	≤ 0.2
10 turns 15 mm radius		≤ 0.2
1 turn 10 mm radius	1625nm	≤ 0.5
10 turns 15 mm radius		≤ 0.5
Mode Field Diameter (μm) at 1310 nm		8.8 ± 0.4
Mode Field Diameter (μm) at 1550 nm		10.0 ± 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 (%)		≤ 0.7
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)		≤ 0.02

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For additional information please contact your sales representative.

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

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