Product Specification

STL HD B3 250 Fibre

ITU-T G.657.B3 Single Mode Optical Fibre

Product Description

STL HD B3 250 fibre is an ITU-T G.657.B3 compliant fibre with low bend loss down to a 5 mm bend radius which is the tightest bend radius for the high-density fibre family. This low bend loss extends to the longer wavelengths required for future system upgrades. Fibres with low bend loss at tight bend radius help operators realize installation and operational efficiencies in their in-building networks.

Product Application

STL HD B3 250 fibre is designed for use in cables for routing around tight corners and through tight spaces typical for in-building installations.

Product Benefits

- Provides installation and operational efficiencies for in-building networks - due to low bend loss at tight bend radius.
- Future system ready - In that low bend loss extends to the longer wavelengths required for future system upgrades.
- Compatible with legacy networks - due to low loss splicing to G.652.D and G.657.A1 and fibres.

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		≤ 0.35
1383 nm		
1550 nm		≤ 0.21
1625 nm		≤ 0.23
Macro bend loss (dB)		
1 turn 5.0 mm radius	1550nm	≤ 0.15
1 turn 7.5 mm radius		≤ 0.08
1 turn 10 mm radius		≤ 0.03
1 turn 5.0 mm radius	1625nm	≤ 0.45
1 turn 7.5 mm radius		≤ 0.25
1 turn 10 mm radius		≤ 0.1
Mode Field Diameter (µm) at 1310 nm		8.6 ± 0.4
Mode Field Diameter (µm) at 1550 nm		9.5 ± 0.5
Cable cutoff wavelength (nm)		≤ 1260
Zero dispersion wavelength (nm)		1300 to 1350
Dispersion at 1550nm (ps/nm.km)		≤ 18
Zero Dispersion Slope (ps/nm².km)		≤ 0.092
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/m²) (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)		1.4678 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 (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