

# STL Nova 200 Fibre

ITU-T G.652.D with features of  
G.657.A1 Single Mode Optical Fibre



## Product Description

STL NOVA 200 is a Single Mode optical fibre with reduced coating diameter and exceeds ITU-T G.657.A1 bend performance. 9.2 micron standard mode field diameter ensures full compatibility with existing networks. The 200um diameter of this fibre enables very high-density cables with small diameter, which allow service providers to maximize the number of fibres that can be installed in existing ducts or to minimize the size or even the need for new ducting and related infrastructure. Low bend loss and reduced diameter fibre allow operators to optimize their physical asset utilization and future proof their high-density networks.

## Product Application

STL NOVA 200 Optical Fibre is suitable for use where full backward compatibility with existing fibres is required. The need to install more fibre in less space has led to wider applications of bend insensitive and reduced diameter fibres.

## Product Benefits

- Minimizes the space required in ducts and related infrastructure - by enabling reduction in cable cross section area by about 30% for the same number of fibres.
- Provides installation and operational efficiencies and enables the use of compact closures and accessories - due to low bend loss.

## 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.

## Product Specifications

Optical Parameters		
<b>Attenuation Max. (dB/km)</b>		
1310 nm		≤ 0.340
1383 ± 3 nm#		≤ 0.320
#After hydrogen aging according to IEC-60793-2-50 regarding the B-652.D fibre category		
1550 nm		≤ 0.200
1625 nm		≤ 0.220
<b>Macro Bend Loss (dB)</b>		
1 turn 10 mm radius	1550nm	≤ 0.5
10 turns 15 mm radius		≤ 0.1
1 turn 16 mm radius	1625nm	≤ 0.03
1 turn 10 mm radius		≤ 1.5
10 turns 15 mm radius		≤ 0.3
Mode Field Diameter (μm) at 1310 nm		9.2 ± 0.4
Mode Field Diameter (μm) at 1550 nm		10.3 ± 0.5
Cable cut-off wavelength (nm)		≤ 1260
Zero dispersion wavelength (nm)		1300 to 1324
Dispersion at 1550nm (ps/nm.km)		≤ 18
Zero Dispersion Slope (ps/nm <sup>2</sup> .km)		≤ 0.092
PMD LDV (ps/√ km)		≤ 0.06
Individual Fibre PMD* (ps/√ km)		≤ 0.1
* Individual PMD values may change when cabled		
Point of discontinuities 1310nm & 1550nm (dB)		≤ 0.05
<b>Geometrical Parameters</b>		
Cladding Diameter (μm)		125 ± 0.7
Core Clad Concentricity error (μm)		≤ 0.5
Cladding Non-circularity (%)		≤ 0.7
Coating Diameter (uncolored) (μm)		190 ± 10
Coating Cladding Concentricity error (μm)		≤ 10
<b>Mechanical &amp; Environmental Characteristics</b>		
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	
Proof Testing		≥ 125 (kpsi) (0.86GN/m <sup>2</sup> ) (This is equivalent to 1.2% strain)
Fibre Curl (m)		≥ 4
<b>Performance Characteristics</b>		
Coating strip force		≥ 1.0 N (0.2 lbf) and ≤ 5.0 N (1.1 lbf)
Dynamic fatigue parameter (N <sub>d</sub> )		≥ 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 increase 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.

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