



# STL HD A2 200 Fibre

## ITU-T G.657.A2 Single Mode Optical Fibre

### Product Description

STL HD A2 200 fibre is an ultra-low bend loss ITU-T G.657.A2 compliant fibre with a 200-micron diameter. This fibre enables very high density (HD) cables with small diameters 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. In addition, the induced loss of this fibre at the tightest bends is a factor of two lower than the ITU-T G.657.A2 standard, providing installation and operational efficiencies in high density networks. This ultra-low bend loss extends to the longer wavelengths required for future system upgrades. Dense fibre technologies with ultra-low bend loss allow operators to optimize their physical asset utilization and future proof their high-density networks.

### Product Application

The need to install more fibre in less space has led to wider application of bend insensitive fibres and reduced diameter fibres. STL HD A2 200 fibre is suitable for use in networks where very-high-density cables and accessories are required.

### Product Benefits

- Maximizes the number of fibres that can be installed in existing infrastructure – By enabling more than double the number of fibres in the same cable diameter.
- Minimizes the space required in ducts and related infrastructure – By reducing cable cross section area by up to 30% for the same number of fibres.
- Provides installation and operational efficiencies and enables the use of compact closures and accessories - Due to ultra-low bend loss.
- 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 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.

## Product Specifications

Optical Parameters		
<b>Attenuation Max. (dB/km)</b>		
1310 nm		≤ 0.35
1383 nm		
1550 nm		≤ 0.21
1625 nm		≤ 0.23
<b>Macro bend loss (dB)</b>		
1 turn 7.5 mm radius	1550nm	≤ 0.2
1 turn 10 mm radius		≤ 0.1
10 turns 15 mm radius		≤ 0.03
1 turn 7.5 mm radius	1625nm	≤ 0.5
1 turn 10 mm radius		≤ 0.2
10 turns 15 mm radius		≤ 0.1
Mode Field Diameter (μm) at 1310 nm		8.6 ± 0.4
Mode Field Diameter (μm) at 1550 nm		9.6 ± 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) * 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)		190 ± 10
Coating Cladding Concentricity error (μm)		≤ 10
Mechanical & 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	
Proof Testing		≥ 125 (kpsi) (0.86GN/m <sup>2</sup> ) (This is equivalent to 1.2% strain)
Fibre Curl (m)		≥ 4
Performance Characteristics		
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)		1.4678 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 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.**

You can also visit our website at [www.stl.tech](http://www.stl.tech)

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