



## PRODUCT DESCRIPTION

Sterlite® PMD-LITE® Single Mode Matched Clad Optical Fiber is a low loss optical fiber optimized for use in the 1310 nm window that can also be effectively used in the 1550 nm wavelength region.

## PRODUCT APPLICATION

Sterlite® PMD-LITE® is ideal for regional, metropolitan and local access networks using CWDM across O, C & L bands. PMD-LITE® attributes and values support higher bit rate applications, up to STM-64 and STM-256.

## PRODUCT BENEFITS

Sterlite® PMD-LITE® is ideal for regional, metropolitan and local access networks using CWDM across O, C & L bands. PMD-LITE® attributes and values support higher bit rate applications, up to STM-64 and STM-256.

## PRODUCT SPECIFICATIONS

Attenuation	$\leq 0.34$ dB/km at 1310 nm $\leq 1.0$ dB/km at 1383 nm $\leq 0.20$ dB/km at 1550 nm
Mode field diameter	$9.2 \pm 0.3$ $\mu$ m at 1310 nm $10.5 \pm 1.0$ $\mu$ m at 1550 nm
Cabled cutoff wavelength	$\leq 1260$ nm
Zero dispersion wavelength	1304 nm to 1322 nm
Zero dispersion slope	$\leq 0.090$ ps/nm <sup>2</sup> .km
Dispersion at 1550 nm	$\leq 17.5$ ps/nm.km
Fiber polarization mode dispersion link design value*	$\leq 0.2$ ps/ $\sqrt$ km
Cladding diameter	$125.0 \pm 0.7$ $\mu$ m
Core-clad concentricity error	$\leq 0.5$ $\mu$ m
Cladding non-circularity	$\leq 0.8$ %
Coating diameter (uncooled)	$245 \pm 5$ $\mu$ m
Coating-cladding concentricity error	$\leq 8$ $\mu$ m

\* Individual PMD values may change when cabled

## MECHANICAL CHARACTERISTICS

Proof test levels	100 kpsi (0.7 GN/m <sup>2</sup> ). This is equivalent to 1% strain	
Coating strip force (Force to mechanically strip the dual coating)	$\geq 1.3$ N (0.3 lbf) and $\leq 5.0$ N (1.2 lbf)	
Fiber curl	$\geq 4$ m	
Macrobend loss: The maximum attenuation with bending does not exceed the specified values with the following deployment conditions		
Deployment condition	Wavelength	Induced attenuation
1 turn, 32 mm (1.2 inch) diameter	1550 nm	$\leq 0.50$ dB
100 turns, 60 mm (2.36 inch) diameter	1550 nm	$\leq 0.05$ dB
	1625 nm	$\leq 0.1$ dB

## ENVIRONMENTAL CHARACTERISTICS

Temperature dependence Induced attenuation, -60 °C to +85 °C at 1310 & 1550 nm	≤ 0.05 dB/km
Temperature humidity cycling Induced attenuation, -10 °C to +85 °C and 95% relative humidity at 1310 & 1550 nm	≤ 0.05 dB/km
Water immersion, 23 °C Induced attenuation due to water immersion at 23 ± 2 °C at 1310 & 1550 nm (30 days)	≤ 0.05 dB/km
High temperature – humidity aging (85 °C, 85%RH) Induced attenuation at 1310 & 1550 nm due to aging (30 days)	≤ 0.05 dB/km

## OTHER PERFORMANCE CHARACTERISTICS\*

Core diameter	8.45 μm
Effective group index of refraction	1.4670 at 1310 nm 1.4675 at 1550 nm
Attenuation in the wavelength region from 1285 - 1330 nm in reference to the attenuation at 1310 nm	≤ 0.03 dB/km
Attenuation in the wavelength region from 1525 - 1575 nm in reference to the attenuation at 1550 nm	≤ 0.03 dB/km
Point discontinuities at 1310 nm & 1550 nm	≤ 0.05 dB
Refractive index difference	0.33 %
Dynamic fatigue parameter (Nd)	≥ 20
Weight per unit length	64 gm/km

\*Typical values

## LENGTH & SHIPPING DETAILS

Shipping Spool Flange Diameter	23.50 cm (9.25 inches) or 26.5 cm (10.4 inches)
Shipping Spool Barrel Diameter	15.24 cm (6.0 inches) or 17.0 cm (6.7 inches)
Shipping Spool Traverse Width	9.55 cm (3.76 inches) or 15.0 cm (5.9 inches)
Shipping Spool Weight	0.50 kg (1.36 lbs) or 0.88 kg (1.93 lbs)
Shipping Length: Standard length per reel available up to 25.2 km. Lengths per reel as per customer request are also available	

## MANUFACTURING PROCESS

Sterlite® controls every stage of the manufacturing process so that quality is built in to every meter of fiber, rather than selected out at the end through testing. To ensure the accuracy and precision of the manufacturing process, Sterlite 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.

## INTERNATIONAL STANDARDS

Sterlite® PMD-LITE® complies with or exceeds ITU Recommendation G.652.B and the IEC 60793-2 Optical Fiber Specification.

## SERVICE USP'S

- Complete range of optical fiber for terrestrial networks
- World-wide sales support
- Web-based order tracking & customer support
- Specialized technical support

## DISCLAIMER

Sterlite's policy of continuous improvement may result in a change in specifications without prior notice. Any warranty of any nature relating to any Sterlite product is only contained in the written agreement between Sterlite Technologies Limited and the direct purchaser of such product(s).

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