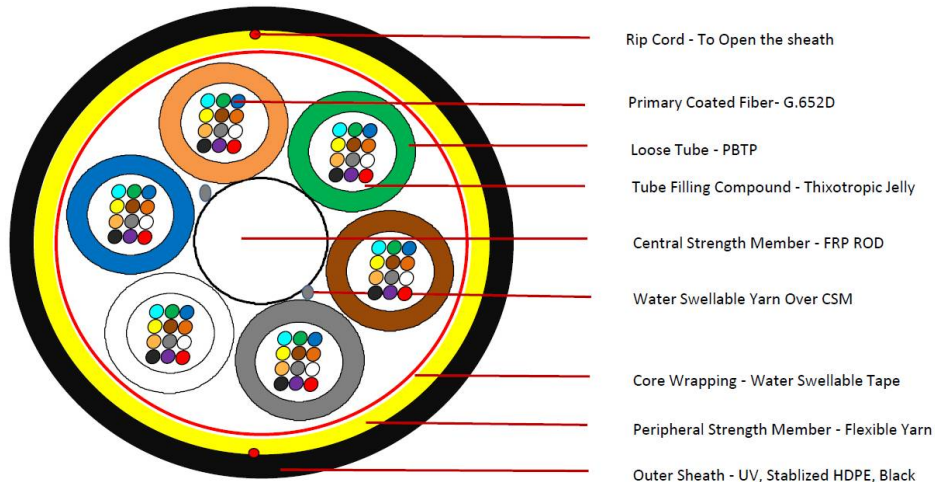


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Single Jacket ADSS 100 meters Span



CABLE CONSTRUCTIONAL DETAILS



INTRODUCTION

Urban aerial ultra-light fiber optic cable containing LWP-SMF in full compliance with ITU-T G.652D. The offered cables are fully compliant to the relevant IEC specifications.

CABLE DESIGN

- Enhance low water peak single mode fibers in full compliance with ITU-T-G.652D.
- Non-metallic and anti-buckling element FRP rod used as Central Strength Member.
- Loose buffer tubes fully filled with Thixotropic Jelly & fibers.
- Loose buffer tubes S-Z Stranded
- Cable core is dry (Water Swellable Yarn over CSM).
- Core wrapped with water swellable tape.
- Yarn used as a Peripheral Strength Member.
- UV Stabilized outer sheath HDPE, Black.
- Rip Cord to open the sheath.

APPLICATION

Suitable for aerial installation

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SPECIAL FEATURES

- Single layer S-Z stranded construction.
- Flexible buffer tubes provide easy fiber routing inside closure.
- Completely dielectric cable / non metallic cable immune to electromagnetic interferences.

CABLE PHYSICAL CHARACTERISTICS

Fibre Count	12	24	36	48	72	96	144
Number of Fibres in each Loose Tube	6			12			
Number of Loose Tube in each cable	2	4	6	4	6	8	12
Number of Filler (if Required)	4	2	0	2	0		
Number of SZ	1						
Cable Diameter (mm)	9.1		9.7		11.0	13.7	
Tolerance ± (mm)	0.5						
Nominal Cable Weight (kg/km)	66.0		75.0		102.0	150.0	
Standard Length (meters)	4000 ± 5%						

CABLE MECHANICAL & ENVIRONMENT CHARACTERISTICS

Test	Standard	Product Performance			
Temperature Range (°C)	[IEC 60794-1-22-F1]	Installation : -05 °C to +50 °C Operating : -20 °C to +60 °C Storage : -20 °C to +60 °C			
Cable Bending Radius (mm)	[IEC 60794-1-21-E11 A & B]	20 X D , D= Cable diameter			
Tensile Force (N)	[IEC 60794-1-21-E1]	1800 N (Max)	2200 N (Max)	4400 N (Max)	5000 N (Max)
Impact Resistance (Nm)	[IEC 60794-1-21-E4]	5 Nm, 3 Impact			
Crush Resistance (N)	[IEC 60794-1-21-E3]	1000 N (100 mm X 100 mm)			
Torsion Resistance	[IEC 60794-1-21-E7]	10 Cycle (± 180°),			
Water Penetration	[IEC 60794-1-22-F5 B]	1 Meter Water Head, 3 Meters Cable Sample, 24 Hours			

CABLE TRANSMISSION CHARACTERISTICS

Fibre Type		Attenuation Coefficient (dB/Km)				PMD	Cable Cut-Off	MFD
		850	1300	1310	1550	ps/sqrt.km	nm	µm
Single Mode	G.652D	-	-	≤ 0.35	≤ 0.22	≤ 0.2	≤ 1260	9.2 ± 0.4

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IDENTIFICATION FIBER & LOOSE TUBE COLOUR

Fibre Colour	Blue	Orange	Green	Brown	Slate	White	Red	Black	Yellow	Violet	Pink	Aqua
Loose tube colour	Blue	Orange	Green	Brown	Slate	White	Red	Black	Yellow	Violet	Pink	Aqua
Filler	BLACK											

Specification of Single Mode Matched Clad Type Optical fibre Conforming to ITU - T Rec. G.652D		
Properties	Unit	Values
Transmission		
Attenuation at 1310 nm	dB/km	≤ 0.34
Attenuation at 1550 nm	dB/km	≤ 0.20
Attenuation at 1625 nm	dB/km	≤ 0.23
Point discontinuity at 1310 & 1550 nm	dB	≤ 0.05
Difference in maximum attenuation in the range from		
1285 to 1330 nm w.r.t attenuation at 1310 nm	dB/km	≤ 0.03
1530 to 1570 nm w.r.t attenuation at 1550 nm	dB/km	≤ 0.02
Maximum chromatic dispersion at		
1285 - 1330 nm wavelength range	ps/nm.km	≤ 3.5
1270 - 1340 nm wavelength range	ps/nm.km	≤ 5.3
1550 nm	ps/nm.km	≤ 18.0
1625 nm	ps/nm.km	≤ 22.0
Zero dispersion wavelength	nm	1302 to 1322
Zero dispersion slope	ps/nm ² .km	≤ 0.092
PMD at 1310 & 1550 nm	ps/sqrt.km	≤ 0.15
PMD Link Design Value at 1310 & 1550 nm**	ps/sqrt.km	≤ 0.06
Fibre cut-off wavelength	nm	≤ 1320
Cable cut-off wavelength	nm	≤ 1260
Mode field diameter range at 1310 nm	µm	9.2 ± 0.4
Mode field diameter range at 1550 nm	µm	10.4 ± 0.5
Geometrical		
Cladding Diameter	µm	125 ± 0.7
Cladding noncircularity	%	≤ 0.7
Primary Coating Diameter (uncoloured)	µm	242 ± 5
Coating Diameter (coloured)	µm	252 ± 10
Core/Clad or Mode Field concentricity error	µm	≤ 0.5
Coating / Cladding Concentricity error	µm	≤ 12
Numerical Aperature**		0.14
Refractive Index at 1310 & 1550 nm**		1.467 & 1.468
Mechanical**		
Proof Test for minimum strain level	kpsi, Gpa, %	≥ 100, ≥ 0.69, ≥ 1
Change in Attenuation with Bending		
100 Turns on 60 mm Diameter Mandrel		
at 1310	dB	≤ 0.05
at 1550	dB	≤ 0.05
1 Turn on 32 mm Diameter Mandrel		
at 1310	dB	≤ 0.5
at 1550	dB	≤ 0.5
Strippability force to remove primary coating of fibre	Newton	1.3 ≤ F ≤ 8.9
Fibre Curl	radius of curve.	≥ 4 mtrs
Dynamic tensile strength (unaged)	kpsi	≥ 550
Dynamic tensile strength (Aged)	kpsi	≥ 440
Dynamic Fatigue		≥ 20

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