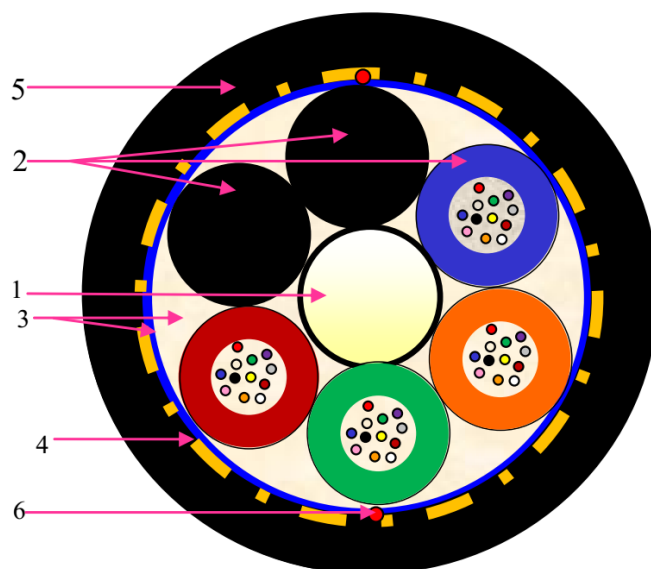


48F SM MT ADDS OPTICAL FIBRE CABLE - 4000N

- 1.) FRP as central Strength Member
- 2.) Jelly filled PBTP loose tubes containing fibres and required number of PE fillers stranded around FRP
- 3.) Interstitial filling & Polyester Tape core wrap
- 4.) GFR Yarn - peripheral strength member
- 5.) HDPE sheath
- 6.) Rip cords provided below the sheath.



Typical Cross Section of 48F ADSS Cable

Technical Specification

Description			Typical Values											
Single Mode Optical Fibre			Complying to ITU – T : G – 652D											
Fibre Colour Code			Blue	Orange	Green	Brown	Slate	White	Red	Black	Yellow	Violet	Pink	Aqua
Buffer Loose Tube Colour			Blue	Orange	Green	Brown	Slate	White	Red	Black	Yellow	Violet	Pink	Aqua
Optical Performance			Max. Attenuation at 1310nm				0.36 dB/km		Max. Attenuation at 1550nm				0.23 dB/km	
Mechanical Performance			Tensile Strength			Crush			Impact	Torsion		Min. Static Bend Radius		
			4000 N at Maximum 0.25% strain			2000N/10cm			25 N-Mt.	± 180 deg		20 x Cable diameter – long term & 10 x Cable diameter – Short term		
Environmental Performance			Temperature			Service			Installation		Storage			
			Specification			- 30° C to + 70° C			- 10° C to + 50° C		- 30° C to + 70° C			
Drg. No.	Size	No. of Elements	Fibres/ Tube	No. of Fillers	FRP Diameter (mm)			Tube Diameter (mm)		Cable Diameter (mm)		Cable Weight (Kg/Km)		
9199	48F	6	12	2	2.3 ± 0.1			2.2 ± 0.1		11.5 Nominal		105 Nominal		

Specifications of Optical characteristics:

The cables are made with high quality optical fibres suitable for operation at 1310 nm and 1550 nm. The fibres conform to international standards **ITU-T G 652D**. The fibres have excellent geometrical properties to yield low splice loss. The fibres have dual acrylate coating and colour of the coating will not change over a period of time. The fibres used in the cables conform to the following specifications:

Parameter	Unit	Specification
1. Cladding Diameter	μm	125.0 ± 1.0
2. Cladding Non-Circularity	%	≤ 1.0%
3. Coated Fiber Diameter	μm	235 to 255
4. Core/Cladding concentricity Error	μm	≤ 0.8
5. Mode Field Diameter	μm	9.3 ± 0.5 at 1310 nm 10.4 ± 0.5 at 1550 nm
6. Coating/cladding concentricity error	μm	≤ 12
7. Minimum Proof Strength	GPa	0.70 (100 kpsi)
Strain	%	1
8. Fiber Curl	m	≥ 4
9. Zero-Dispersion Wavelength	nm	1300 to 1324
10. Zero-Dispersion Slope	ps/nm ² -km	≤ 0.092
11. Chromatic Dispersion 1285-1330 nm 1270-1340 nm 1550 nm	ps/nm-km	≤ 3.5 ≤ 5.3 ≤ 18
12. Polarisation Mode Dispersion Coefficient for fibre.	ps/√km	≤ 0.2 at 1310 nm & 1550 nm
13. Fiber Cut-off Wavelength	nm	≥ 1150 ≤ 1320
14. Fiber Macrobend : (100 turns 60 mm dia.)	dB	≤ 0.05 at 1310 nm ≤ 0.10 at 1550 nm
15. Fiber Macrobend : (1 turn at 32 mm diameter)	dB	≤ 0.5 at 1550 nm
16. Coating Strip Force	N	1.3 ≤ F ≤ 8.9
17. Dynamic Tensile Strength	kpsi	Unaged : >550 (3.8 GPa) Aged : >440 (3.0 GPa)
18. Dynamic Fatigue		≥ 20
19. Static Fatigue		≥ 20