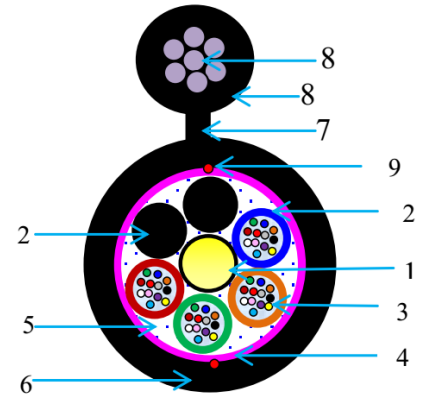


## 48F-96F SM MT FIG8 AERIAL OPTICAL FIBRE CABLE

1. Fibre Reinforced Plastic as dielectric central strength member
2. Poly Butylene Terephthalate (PBTP) loose tubes and fillers stranded around the central strength member to form the cable core
3. Optical fibres are housed in loose tubes, Thixotropic jelly injected into loose tube with fibre
4. Polyester tape is wrapped around the cable core
5. Interstices within the cable core flooded with jelly
6. High-density polyethylene(HDPE) sheath of min. thickness 1.5mm
7. HDPE Web (2.0 x 2.0) ± 1.0 mm
8. GS Wire Strand (7 Nos. of 1.0 mm nominal) embedded within HDPE sheath and connected to the cable core with HDPE web forming Fig 8.
9. Ripcords provided below the sheath.



Cross Section of 48F Fig 8 Aerial Cable

### Technical Specification

Description		Typical Values											
<b>Single Mode Optical Fibre</b>		<b>Complying to ITU – T : G – 652D</b>											
<b>Fibre Colour Code</b>		Blue	Orange	Green	Brown	Slate	White	Red	Black	Yellow	Violet	Pink	Aqua
<b>Buffer Loose Tube Colour</b>		Blue	Orange	Green	Brown	Slate	White	Red	Black	Yellow	Violet	Pink	Aqua
<b>Optical Performance</b>		Max. Attenuation at 1310nm				0.36 dB/km		Max. Attenuation at 1550nm				0.23 dB/km	
<b>Mechanical Performance</b>		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			
<b>Environmental Performance</b>		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)					
9200	48F	6	12	2	2.3 ± 0.1	2.1 ± 0.1	10.3 x 19.3 Nominal		155 Nominal				
9746	96F	8	12	0	3.1 ± 0.1	2.1 ± 0.1	11.1 x 20.1 Nominal		175 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 <sup>2</sup> -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 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