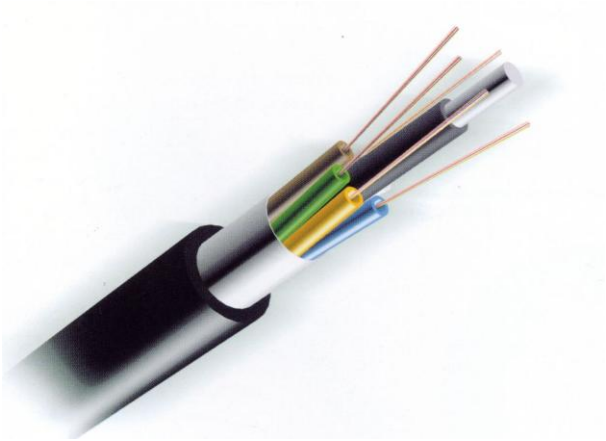
Outdoor Fiber Cable – Loose Tube

TOTA



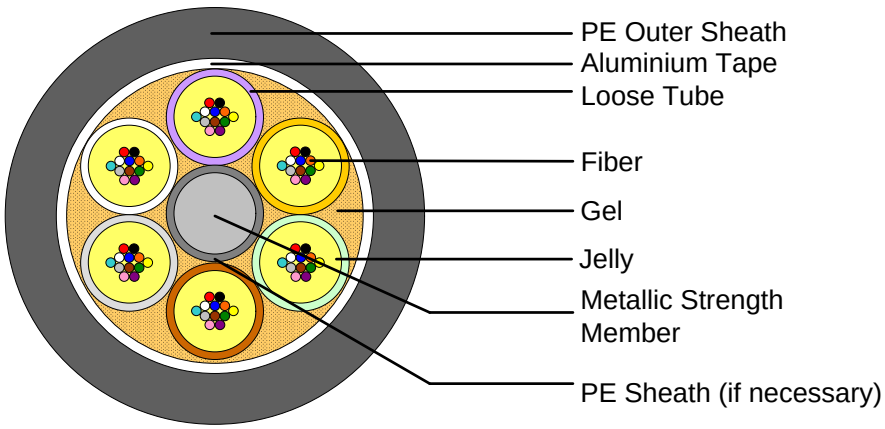
Optical Cable Specifications

Application

The fiber optic cable consists of six loose tubes stranded around the metallic central strength member, protected by overlapping flat aluminium tape longitudinally applied, over which an outer sheath of polyethylene is applied, providing an excellent moisture-barrier. An inner sheath of PE is applied if necessary. This cable is designed for outdoor transmission lines in core network, for example, long haul and relay lines between local telecommunication centers. It can also be used as outdoor distribution lines or feeder in access network.

Cable features

- Up to 432 fiber count
- Singlemode 9/125μm or Multimode 50/125μm or 62.5/125μm
- Jelly-filled cable core
- Loose tube material: Polybutylene Terephthalate (PBTP)
- Adopts special SZ cross-directional stranding method
- Central strength member: Phosphated steel wire
- Two side coated aluminum tape bonding to PE sheath ensures radial moisture -proof
- Color coding complies with TIA/EIA-598B



Mechanical Specifications

Fiber count	Cable diameter (mm)	Cable weight (kg/km)	Min. bending radius (mm)		Allowable tension (N)		Max. crush loading force (N/100mm)	
			Static state	Dynamic state	Short term	Long term	Short term	Long term
2-24	10.3	103	10 times cable diameter	20 times cable diameter	1500	600	1000	300
26-36	11.0	125						
38-60	11.8	130						
62-72	12.6	155						
74-96	14.1	195						
98-120	15.8	235						
122-144	17.4	275						
146-216	17.8	310						
218-288	22.8	480						
290-432	23.1	500						

Optical fiber specifications – Singlemode

Fiber Code	S9	
Wavelength (nm)	1310	1550
Core/Cladding (μm)	9/125	
Mode-Field Diameter (μm)	(9.3) ± 0.5	(10.5) ± 1.0
Max. Attenuation (dB/km)	≤ 0.35	≤ 0.22
Dispersion Coefficient (ps/km·nm)	λ @ 1285nm~1339nm	λ @ 1550nm
	≤ 3.5	≤ 18
Cutoff wavelength (nm)	λ_c = 1260 ± 70	
Glass concentricity error (μm)	≤ 0.8	
Cladding non-circularity (%)	≤ 1.0	
Proof test (Kpsi)	≥ 100Kpsi (0.7GN/m^2)	
Dynamic fatigue (tensile)	≥ 20	
Compliance	ITU-T G.652 (Categories A, B, C & D)	

Optical fiber specifications – Multimode

Fiber Code	M5		M6	
Wavelength (nm)	850	1300	850	1300
Core/Cladding (μm)	50/125		62.5/125	
Core non-circularity (%)	≤ 6.0			
Cladding non-circularity (%)	≤ 1.0			
Core/Cladding non-concentricity (%)	≤ 6.0			
Numerical Aperture	0.20 ± 0.02		0.275 ± 0.015	
Max. Attenuation (dB/km)	≤2.3	≤0.5	≤2.6	≤0.6
Performance (MHz.km)	≥500	≥1000	≥400	≥1000
Proof test (Kpsi)	≥ 100			
Dynamic fatigue (tensile)	≥ 25			

Notes

- Fiber colors by EIA/TIA-598-B: Blue/Orange/Green/Brown/Slate/White/Red/Black/Yellow/Violet/Rose/Aqua
- Diameter represents a nominal vary and may vary by ±5%