



Outdoor Optical Fiber Cable

Stranded loose tube cable with aluminum Tape and tape(double sheaths)



Features:

- Accurate fiber excess length ensures good mechanical and temperature performance.
- High strength loose tube that is hydrolysis resistant and special tube filling compound ensure a critical protection of fiber.
- Specially designed compact structure is good at preventing loose tubes from shrinking.
- The loose tubes and all interstices of cable core filled with moisture-proof and water blocking compound ensure no longitudinal water ingress.
- The aluminum tape is laminated at both sides with polyethylene and bonding to PE jacket.
- Longitudinal corrugated steel tape bonding to PE jacket ensures not only radial moisture-proof but also reinforces the crush resistance.
- Polyethylene outer jacket can resist deterioration from ultra-violet (UV) rays.

Parameter:

Fiber Count	Outsided Diameter	Tube count	Nominal Weight	Min. Bend Radius		Max. Tensile Strength		Max. Crush Resistance	
				Loaded	Installed	Short Term	Long Term	Short Term	Long Term
	mm	pcs	kg/km	mm	mm	N	N	N/100mm ²	
2~60	14.0±0.5	5	248	20D	10D	3000	1000	3000	1000
62~72	16.0±0.5	6	283	20D	10D	3000	1000	3000	1000
74~96	17.0±0.5	8	325	20D	10D	3000	1000	3000	1000
98~120	20.5±0.5	10	396	20D	10D	3000	1000	3000	1000
122~144	22.0±0.5	12	443	20D	10D	3000	1000	3000	1000
Temperature range: -40℃~+70℃(Storage or transportation), -40℃~+70℃(Operation)									
Note: The actual weight of optical cable may have some tolerance with the above stated value.									

Single-mode Fiber:

Item	Unit	Specification	
		G652	G655
Attenuation	dB/km	@ 1310 nm ≤ 0.36	≤ 0.40
		@ 1550 nm ≤ 0.22	≤ 0.23
Dispersion coefficient	ps/(nm • km)	(1285nm) = -3.5	(1530nm) = 2.0
		(1340nm) = 3.5	(1565nm) = 6.0
		(1550nm) = 18	(1565nm) = 4.5
		(1625nm) = 22	(1625nm) = 11.2
Zero dispersion wavelength	nm	1312 $\pm$ 12	≤ 1520
Zero dispersion slope	ps/(nm ² • km)	= 0.091	≤ 0.084
Fiber cutoff wavelength	nm	= 1260	≤ 1450
Mode field diameter	μ m	@ 1310 nm 9.2 $\pm$ 0.4	N/A
		@ 1550 nm 10.4 $\pm$ 0.5	10.4 $\pm$ 0.5
Core / cladding concentricity error	μ m	≤ 0.6	
Cladding diameter	μ m	124.8 $\pm$ 1.0	
Cladding non-circularity	%	≤ 1.0	
Coating / cladding concentricity error	μ m	≤ 12.0	
Coating diameter	μ m	245 $\pm$ 7	
Bending, dependence induced attenuation	dB	(1550nm, 1turn, 32mm diameter) ≤ 0.5	
		(1550nm, 100turns, 60mm diameter) ≤ 0.5	
Proof test (off line)	kpsi	100	

Multi-mode Fiber:

Item	Unit	Specification			
		50/125		62.5/125	
		Class A	Class C	Class A	Class C
Attenuation	dB/km	@ 850 nm	≤ 3.0	≤ 3.0	
		@ 1310 nm	≤ 1.0	≤ 1.0	
Bandwidth	Mhz • km	@ 850 nm	≥ 500	≥ 200	≥ 200
		@ 1310 nm	≥ 1000	≥ 200	≥ 600
Mode field diameter	μm	50 ± 2.5		62.5 ± 2.5	
Core / cladding concentricity error	μm	≤ 1.5			
Cladding diameter	μm	124.8 ± 1.0			
Cladding non-circularity	%	≤ 1.0			
Coating / cladding concentricity error	μm	≤ 12.0			
Coating diameter	μm	245 ± 7			
Bending, dependence induced attenuation	dB	(850nm, 1300nm 100turns, 75mm diameter) ≤ 0.5			
Proof test (off line)	kpsi	100			

Standard Fiber Colour Identification:

1	2	3	4	5	6	7	8	9	10	11	12
BL-Blue	OR-Orange	GR-Green	BR-Brown	GY-Grey	WH-White	RE-Red	BK-Black	YE-Yellow	PU-Purple	PI-Pink	AQ-Aqua

1. The colour arrangement of fibre type and tube is specified in the colour identification table
2. Chromatography may be required by customer production

Indicatory Colour Identification:

1	2	3	4	5	6	7	8	9	10	11	12
Red	Green	Natural	Natural	Natural	Natural	Natural	Natural	Natural	Natural	Natural	Natural

1. If fillers are used in the cable core. They should be arranged near the red tube except when there are special requirements.
2. If only one tube is in the cable core. The tube colour should be green except when there are special requirements.

Package:

Printing at out jacket of optical cable

White color printing in at each meter distance, standard printing content as following, customer special request:

1. Meter mark
2. Style of optical cable and fiber account
3. Manufacture date

Package of optical cable

1. Standard length is 1KM, other length is negotiable.
2. Package: wooden drum or plywood drum.
3. The end face of optical cable will be in water-proof plastic cap or adhesive tape.
4. Batten totally sealed and fixed with steel tape.
5. The other end of optical cable will be fixed into the wooden drum.
6. Label will be stuck at wooden drum, content as following:
 - (1) Style of optical cable and fiber count
 - (2) Length
 - (3) Gross weight in KGS
 - (4) Total drums amount
 - (5) Manufacture date
 - (6) The following information also will be exposed at the wooden drum
 - a. Rolling direction
 - b. Optical cable rolling tightly with the wooden drum, to prevent possible damage during transportation process.