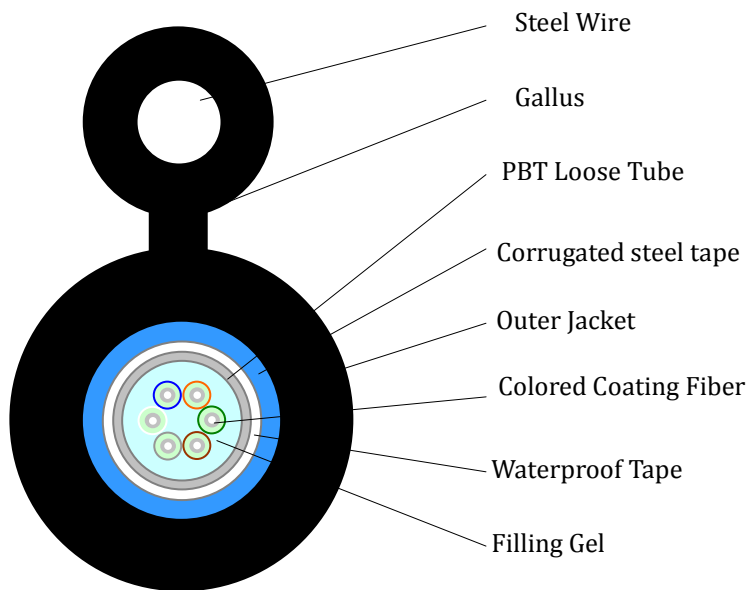


GYXTC8S Figure 8 self-supporting Center Tube Optical Cable

The fibers, 250µm, are positioned in a loose tube made of a high modulus plastic, the tubes are filled with a water-resistant filling compound. Loose tubes filled with water proof compound to ensure compact and longitudinally water blocking, this part of cable accompanied with the wires as the supporting part are completed with a polyethylene(PE) sheath to be figure 8 structure.

Cable Drawing



Note : Structure drawing just for reference, please check the following details.

Application

This specification covers the general requirements of Figure 8 self-supporting cable_for aerial .

Characteristics

- ✧ High tensile strength of stranded wires meet the requirement of self-supporting
- ✧ and reduce the installation cost.
- ✧ Good mechanical and temperature performance
- ✧ High strength loose tube that is hydrolysis resistant
- ✧ Special tube filling compound ensure a critical protection of fiber
- ✧ The following measures are taken to ensure the cable watertight:
- ✧ Loose tube filling compound
- ✧ 100% cable core filling
- ✧ steel tape moisture barrier

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Features:

Fiber Allocation Scheme

Fiber number	Tube number	Fiber per tube	Fiber type
2-12	1	2-12 F/Tube	ITU.-T G.652.D

Cable construction details

Items		Description
Number of fiber		2-12 cores
Connector strength member	Material	Galvanized steel wire
	diameter	1.6 mm
Loose tube	material	PBT
	diameter	Φ2.0
Cable filling	material	Cable filling compound
Outer sheath	material	PE
	diameter	1.7±0.2mm

Standard color of fiber and tube

The color code of the individual fibers, shall be in accordance with the table as below:

Standard Color Identification						
No.	1	2	3	4	5	6
Color	Blue	Orange	Green	Brown	Slate	White
No.	7	8	9	10	11	12
Color	Red	Black	Yellow	Violet	Pink	Aqua

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Cable Mechanical characteristic

Items	Cable diameter	Weight
2-12 cores	3.8*7.5±0.1mm	90±2 kg/km
Installation Temperature range	-15--+60℃	
Operation and transport temperature	-40-+70℃	
Min Bending Radius(mm)	Long term	10D
	short term	20D
Allowable Tensile Strength(N)	Long term	600
	short term	1500
Crush Load (N/100mm)	Long term	600
	short term	1500

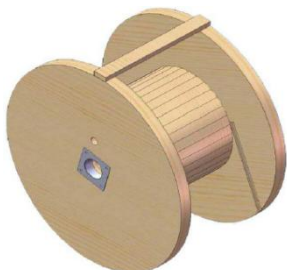
Requirement for Order:

- 1.Fiber sort: Single mode G652,G655,G657, Multi mode 50/125,62.5/125,OM3,OM4.
- 2.Fiber brand: YOFC, Corning, Fiberhome Fujikura, OFS etc.
- 3.Sheath material: PE,LSZH(can be required).
- 4.Sheath color: Black ,can be required.
- 5.The fiber and tube color: according to stranded color, can be required.
- 6.The cable Size: shall be in accordance with the table, can be required.
- 7.Length of cable: generally is 2KM, can be required.
- 8.Other requirement: can be negotiated.

Fiber characteristic

Fiber style		Unit	SM G652D	MM 50/125	MM 62.5/125
condition		nm	1310/1550	850/1300	850/1300
attenuation		dB/km	≤0.36/0.23	≤3.0/1.0	≤3.0/1.0
Dispersion	1310nm	Ps/(nm*km)	≤18	.....	.....
	1550nm	Ps/(nm*km)	≤22	.....	.....
Bandwidth	850nm	MHZ. KM	.....	≥400	≥160
	1300nm	MHZ. KM	.....	≥800	≥500
Zero dispersion wavelength		nm	≥1302, ≤1322
Zero dispersion slope		nm	≤0.091
PMD Maximum Individual Fiber			≤0.2

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PMD Design Link Value		Ps(nm ² *km)	≤0.08
Fiber cutoff wavelength λ _c		nm	≥1180,≤1330
Cable cutoff wavelength λ _{cc}		nm	≤1260	.....	.....
MFD	1310nm	um	9.2±0.4	.....	.....
	1550nm	um	10.4±0.8	.....	.....
Numerical Aperture(NA)			.....	0.200±0.015	0.275±0.015
Step(mean of bidirectional measurement)		dB	≤0.05	≤0.10	≤0.10
Irregularities over fiber length and point discontinuity		dB	≤0.05	≤0.10	≤0.10
Difference backscatter coefficient		dB/km	≤0.03	≤0.08	≤0.10
Attenuation uniformity		dB/km	≤0.01	.....	.....
Core diameter		um	.....	50±1.0	62.5±2.5
Cladding diameter		um	125.0±0.1	125.0±0.1	125.0±0.1
Cladding non-circularity		%	≤1.0	≤1.0	≤1.0
Coating diameter		um	242±7	242±7	242±7
Coating/chaffinch concentricity error		um	≤12.0	≤12.0	≤12.0
Coating non circularity		%	≤6.0	≤6.0	≤6.0
Core/cladding concentricity error		um	≤0.6	≤1.5	≤1.5
Curl(radius)			um	≤4	.....

Cable marking and cable reel marking

Cable marking

The cable sheath shall be marked with white characters at intervals of one meter with following information:

1. Purchaser's name(optional)
2. Cable type
3. Fiber type and counts
4. Year of manufacture

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5. Length marking

Notice: cable mark is available if requested by customer.

Cable reel:

Details given below shall be marked with a weather materials on both outer sides of the reel flange :

1. Cable type and fiber counts
2. Length of cable in meters
3. Year of manufacture

Notice: shipping mark is available if requested by customer.

Packing Information

1. Packing material: Wooden drum
2. Packing length: standard length of cable shall be 2 km. Other cable length is also available if required by customer

Testing Lab:

No	Device name	No	Device name
1	Optical time domain reflectometer (OTDR)	8	GNZV Cable Torsion Testing Machine
2	Fiber Polarization Mode Dispersion	9	GQNV Cable Flexing Testing Machine
3	Fiber Dispersion ,Strain Tester	10	GJRV Cable Winding Testing Machine
4	High Low Temperature Test Chamber	11	GZDV Cable Vibration Testing Machine
5	Cable Impact Testing Machine	12	Cable Water Penetration Test
6	Cable Squash Tensile Testing Machine	13	Fusion Splicer
7	GWQV Cable Bending Tester	14	Cable Water Penetration Test Rig

Fiber Optic Cable Mechanical Performance Testing Laboratory

1. Main Testing Type: Precision Test and Mechanical Test.
2. Precision Testing Machine: EXFO OTDR, EG&G PMD-440,CD-400.
3. Mechanical Performance Testing : Temperature, Impact, Tensile, Bending, Torsion, Flexing, Winding, Vibration, Water Penetration, Fusion Splicer, Water Penetration.

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