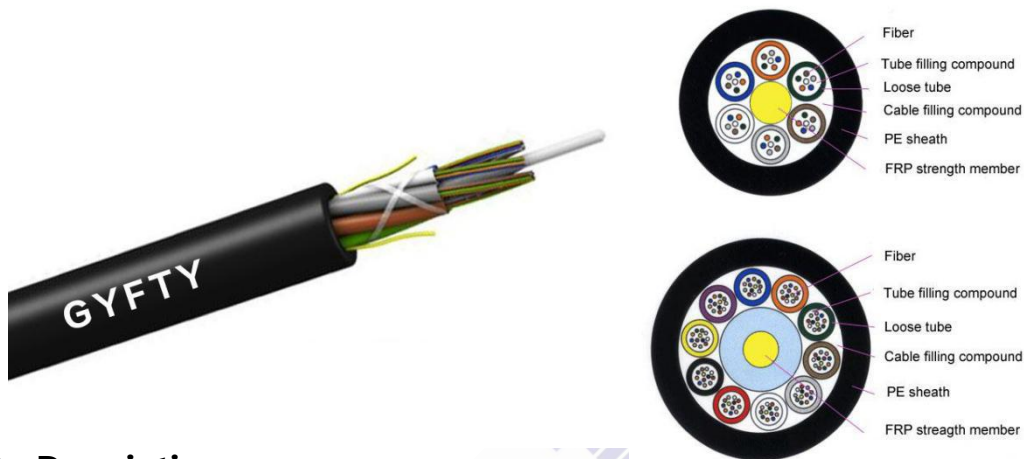


Non-metallic Strength Member Non-armored Cable(GYFTY)

1、 Cable Drawing



2、 Description

The fibers, 250 μ m, are positioned in a loose tube made of a high modulus plastic. The tubes are filled with a water-resistant filling compound. A Fiber Reinforced Plastic (FRP) locates in the center of core as a non-metallic strength member. The tubes (and fillers) are stranded around the strength member into a compact and circular core. After the cable core is filled with the filling compound to protect it from water ingress, the cable is completed with a PE sheath.

3、 Features

- Good mechanical and temperature performance
- High strength loose tube that is hydrolysis resistant
- Special tube filling compound ensure a critical protection of fiber
- Crush resistance and flexibility
- The following measures are taken to ensure the cable watertight:
 - 1) Single Fiber Reinforced Plastic as the central strength member
 - 2) Loose tube filling compound
 - 3) 100% cable core filling

XDK Communication Equipment (Huizhou) Co., Ltd.

4、 Application

- Adopted to outdoor distribution
- Adopted to trunk power transmission system
- Access network and local network in high electromagnetic interfering places

5、 Specification

1) Fiber Allocation Scheme

Fiber number	Tube number	Fiber per tube	Fiber type
24-216	2-18	1-12 F/TuSbe	G652D, G657A1

2) Cable construction details

Items		Description
Number of fiber		24-216 cores
Moisture Barrier		Water blocking system
Ripcord Count		2
FRP strength member	material	FRP
	diameter	1.4~2.0mm+ -0.2mm
Loose tube and Filler elements	material	PBT
	diameter	Φ1.8~2.0mm+ -0.2mm
Tube-filling	material	Tube filling compound
Outer sheath	material	PE,LSZH(can be required)
	Thickness	1.7±0.2mm
	color	Black (can be required)

3) Standard color of fiber and tube

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

Standard Colour 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
Color 13~24 will be marked with a black tracer. For black color no need marked black tracer, will use nature color instead.						

Note: The color can be required by customers.

4) Cable Mechanical characteristic

Items	Cable diameter	Weight
2~48 cores	8.6±0.5	85±05
50~72 cores	9.2±0.5	100±05
74~96 cores	10.8±0.5	130±05
98~120 cores	11.5±0.5	160±05
122~144 cores	12.2±0.5	204±05
146~216 cores	16±0.5	205±05
Installation Temperature range	-40-+70°C	
Operation and transport temperature	-40-+70°C	
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	300
	short term	1000

5) Requirement for Order

- (1) Fiber sort: Single mode:G652,G655,G657, Multi mode:OM1,OsM2,OM3,OM4.
- (2) Fiber brand: YOFC, Corning, Fiberhome,Fujikura,OFS etc.
- (3) The fiber and tube color: according to stranded color, can be required.
- (4) The cable Size: shall be in accordance with the table, can be required.
- (5) Length of cable: generally is 2KM, can be required.
- (6) Other requirement: can be negotiated.

6) Fiber Characteristic

Fiber style		Unit	SM 9/125	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		ps/km	≤0.2	.....	.....
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

XDK Communication Equipment (Huizhou) Co., Ltd.

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	.....	.....

6、 Cable marking and cable reel marking

6.1 Cable marking

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

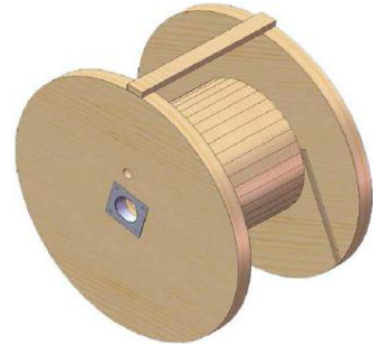
- (1) Purchaser' s name
- (2) Cable type
- (3) Fiber type and counts
- (4) Year of manufacture
- (5) Length marking

Notice: cable mark is available if requested by customer.

6.2 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.

7、 Packing Informations

- (1) Packing material: Wooden drum
- (2) Cable end protect material: waterproof-cap
- (3) Packing length: standard length of cable shall be 2 km. Other cable length is also available if required by customer

8、 Our certificates

- (1) ISO9002
- (2) SGS, ROHS
- (3) ULE329066
- (4) REACH

9、 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

XDK Communication Equipment (Huizhou) Co., Ltd.

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.

10、 Our advantages

- (1) Professional cable manufacturer
- (2) About 10 years experiences in cable industry
- (3) MOQ just 1Km
- (4) ISO, UL , ROSH,REACH...certifications
- (5) Can be customized production of fiber optic cable

