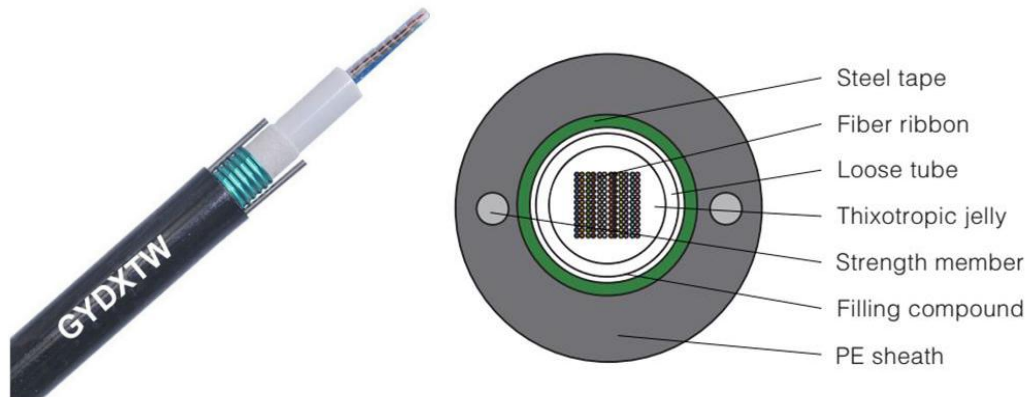


Unitube Light-armored Ribbon Cable (GYDXTW)

1、 Cable Drawing



2、 Description

The ribbon 12 fibers, are positioned in a loose tube made of a high modulus plastic. The tubes are filled with a water-resistant filling compound. The tube is wrapped with a layer of PSP longitudinally. Between the PSP and the loose tube water-blocking material is applied to keep the cable compact and watertight. Two parallel steel wires are placed at the two sides of the steel tape. The cable is completed with a polyethylene (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
- Two parallel steel wires ensure tensile strength
- Compact structure light weight
- Can be installed conveniently and operated simply

4、 Application

- Adopted to Outdoor distribution.
- Suitable for aerial pipeline laying method.

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- Long distance and local area network communication.

5、Specification

1) Fiber Allocation Scheme

Fiber number	Tube number	Fiber per tube	Fiber type
24-144	1	24-144	OS1,OS2,OM1,OM2,OM3,OM4

2) Cable construction details

Items		Description
Number of fiber		12 cores/flat
Moisture Barrier		filling compound
Steel wire	Number	2
	diameter	0.8 mm
Loose tube	material	PBT
	diameter	Φ2.2mm(outer/inner)
Outer sheath	material	PE,LSZH(can be required)
	diameter	Apro.15mm
	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

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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
24 cores to 60 cores		15.0±0.3mm	240±10kg/km
72 cores to 84 cores			272±10kg/km
96 cores to 144 cores			325±10kg/km
Installation Temperature range		-15--+60°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	MM	MM
		9/125	50/125	62.5/125
Condition	nm	1310/1550	850/1300	850/1300

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Attenuation		dB/km	≤0.34/0.20	≤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
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

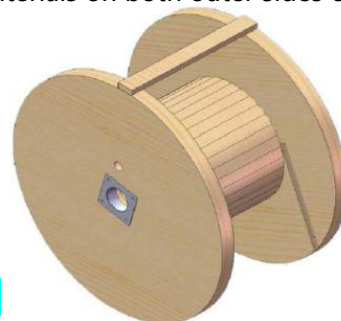
Notice: cable mark is available if requested by customer.

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

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- (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
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

