



Chang Cheng Optical Fiber&cable

GUANGDONG CHANGCHENG COMMUNICATION TECHNOLOGY CO., LTD

TECHNICAL SPECIFICATION**FOR**

**(GYTA53) Double Sheath Armored outdoor armored single mode
Underground optical fiber cable**

★Products: Fiber optic cable**★Customer:****★Date: March 21, 2020****★Authorized by:****★Address: No.1 Foling Road, Liaobu Town, Dongguan city, Guangdong Province China 523000**

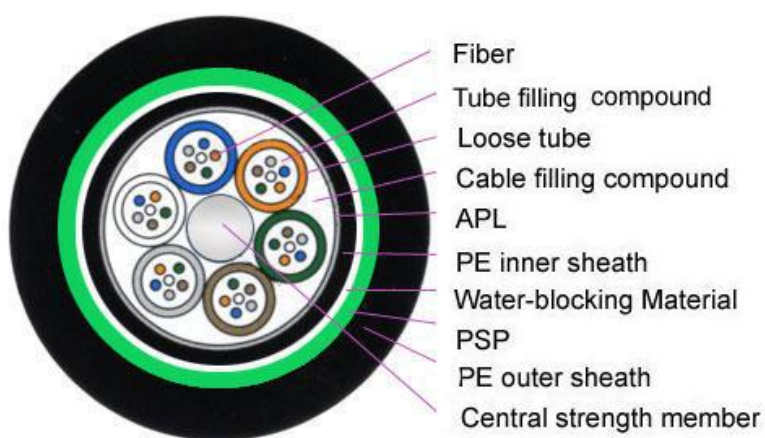


FIBER COLOR CODE

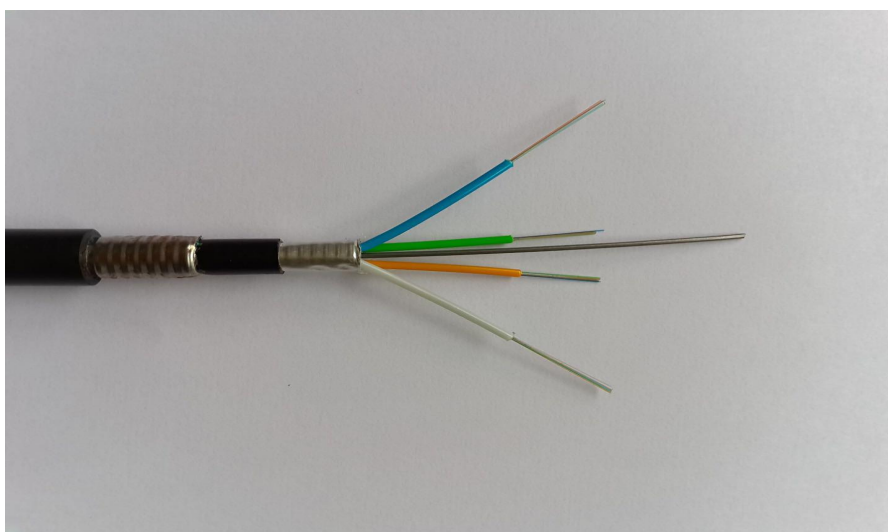


Color												
												
No.of fiber	1	2	3	4	5	6	7	8	9	10	11	12

• Product physical structure:



• Product physical map:





• Description

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. A steel wire, sometimes sheathed with polyethylene (PE) for cable with high fiber count, locates in the center of core as a metallic strength member. Tubes (and fillers) are stranded around the strength member into a compact and circular cable core. An Aluminum Polyethylene Laminate (APL) is applied around the cable core, which is filled with the filling compound to protect it from water ingress. Then the cable core is covered with a thin PE inner sheath. After the PSP is longitudinally applied over the inner sheath, the cable is completed with a PE outer sheath.

• Characteristics

1. Good mechanical and temperature performance
2. High strength loose tube that is hydrolysis resistant
3. Special tube filling compound ensure a critical protection of fiber
4. Crush resistance and flexibility
5. The following measures are taken to ensure the cable watertight:
 - Steel wire used as the central strength member
 - Loose tube filling compound
 - 100% cable core filling
 - APL moisture barrier
 - PSP enhancing moisture-proof
 - Water-blocking material

• Standards

IEC 60793-1	Optical fiber : Generic specifications
IEC 60793-2	Optical fiber : Product specifications
IEC 811-1	Water Absorption
IEC 1034	Smoke Emission
ITU-T G.652	Characteristics of a single-mode optical fiber and cable
EIA/TIA 598-B	Color code of fiber optic cables
ROHS/CE	Complies with standard CE&ROHS
ISO	ISO9001:2015
Test Standard	IEC 60794-1-2 E1/IEC 60794-1-2 E3/IEC 60794-1-2 E4

• Optical Characteristics

		G.652	G.655	50/125μm	62.5/125μm
Attenuation (+20℃)	@850nm			≤3.0 dB/km	≤3.0 dB/km
	@1300nm			≤1.0 dB/km	≤1.0 dB/km



	@1310 nm	≤0.36 dB/km	≤0.40 dB/km		
	@1550 nm	≤0.22 dB/km	≤0.23dB/km		
Bandwidth (Class A)	@850nm			≥500 MHz·km	≥200 MHz·km
	@1300 nm			≥1000 MHz·km	≥600 MHz·km
Numerical Aperture				0.200±0.015NA	0.275±0.015NA
Cable Cut-off Wavelength λ_{cc}		≤1260 nm	≤1480nm		

•Technical Parameters

Cable Type	Fiber Count	Tube s	Fillers	Cable Diameter mm	Cable Weight kg/km	Tensile Strength Long/Short Term N	Crush Resistance Long/Short Term N/100mm	Bending Radius Static /Dynamic mm
GYTA53-72	72	6	0	13.2	244	1000/3000	1000/3000	10D/20D
GYTA53-144	144	12	0	15.5	362	1000/3000	1000/3000	10D/20D

• Working environment

Parameters		Value
1. Maximum pole span length		50m/200m
2. Temperature	installation	-40℃ to +70℃
	Operation	-40℃ to +70℃
3. Practical check: cable hang correct on column distance (50m), sag 1% in practical condition and on per distance column bigger 200N		Optical fiber shrinkage in cable ≤0.03%, the difference loss after and before isn't bigger 0.02dB/km
4. Bending radius allowed		≤ 20 x cable diameter
5. Cable life		≥ 20 years

• Details

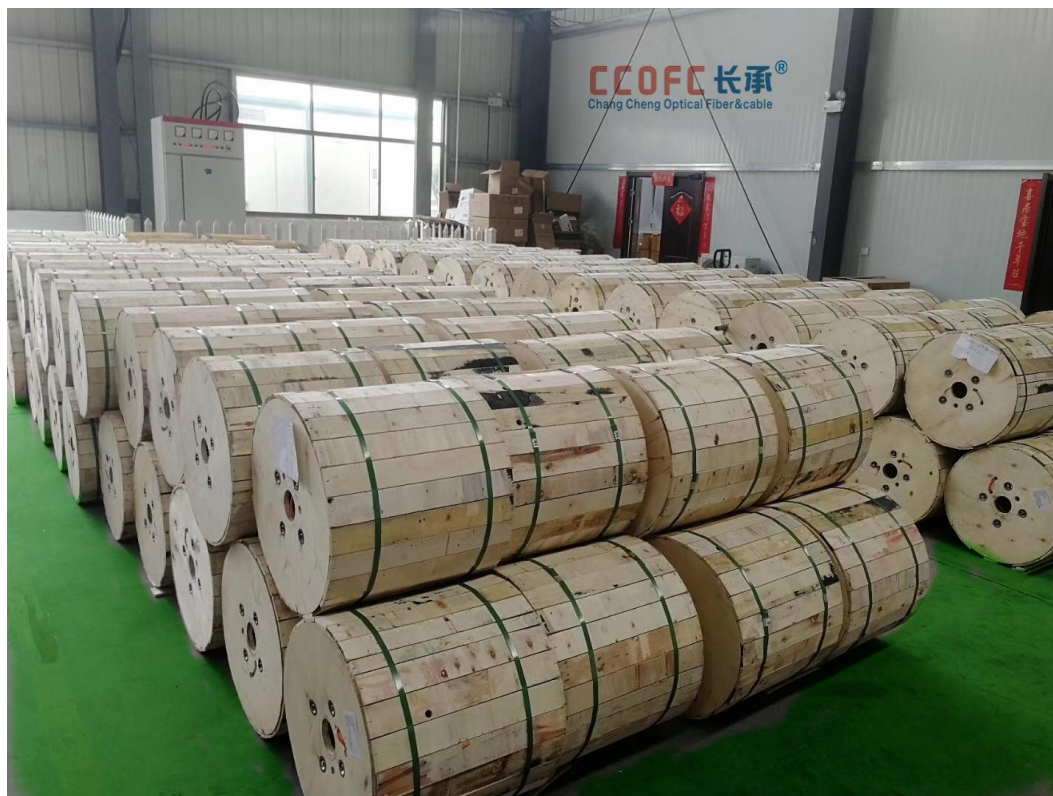
No.	Content	Technical requirement
I	Mechanical targets	
1	Tube diameter	1.8mm
2	Fiber per tube	12
3	Numbers of tube	6/12
2	Shock resistance of cable	≥ 05 times
3	Applied Load Crush Resistance	≥ 900N/100mm

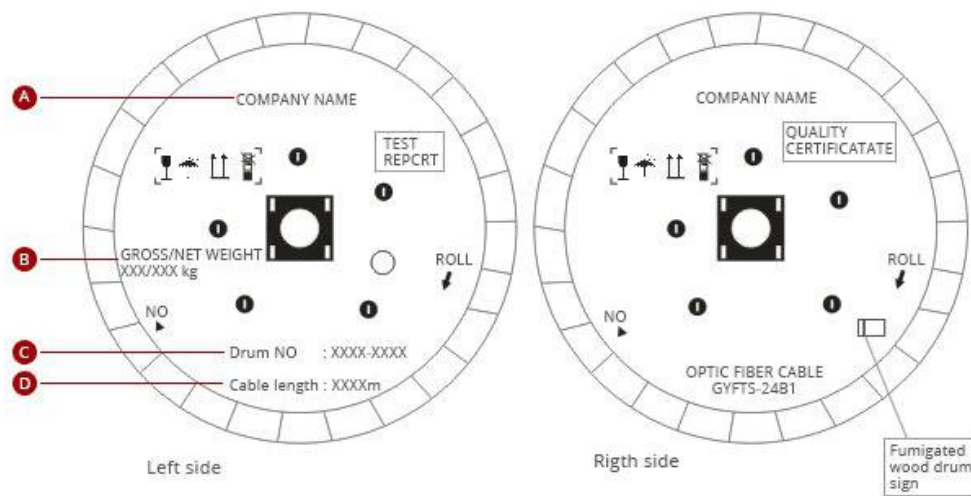


4	Twist resistance of cable	No of twist cycles: ≥ 10 times
5	Steel messenger wire	7strands (2.4 mm)Galvanized
6	Thickness of cladding	$125\mu\text{m}\pm 1.0\mu\text{m}$.
7	Coating diameter	$245\mu\text{m}\pm 7.0\mu\text{m}$.
8	Mode field diameter (1310nm)	$9.2\mu\text{m}\pm 0.4\mu\text{m}$
9	Mode field diameter (1550nm)	$10.4\mu\text{m}\pm 0.8\mu\text{m}$
10	Outer Jacket	PE/LSZH
11	Warranty	10year

• Packing and Marking

- 1、Standard wooden drum.
- 2、Cable length per drum: 2000m/drum
- 3、Cable end sealed.
- 4、Drum diameter > 30 time of cable diameter.





END