

Ningbo Youxin Optic-Electronic Technology Co.,LIMITED



**TECHNICAL SPECIFICATIONS
FOR GYXTC8Y CABLE**

1. Product Description

This specification covers the general requirements and performance of cable for GYXTC8Y, which FOC offered including optical characteristics, mechanical characteristics and geometrical characteristics and etc.

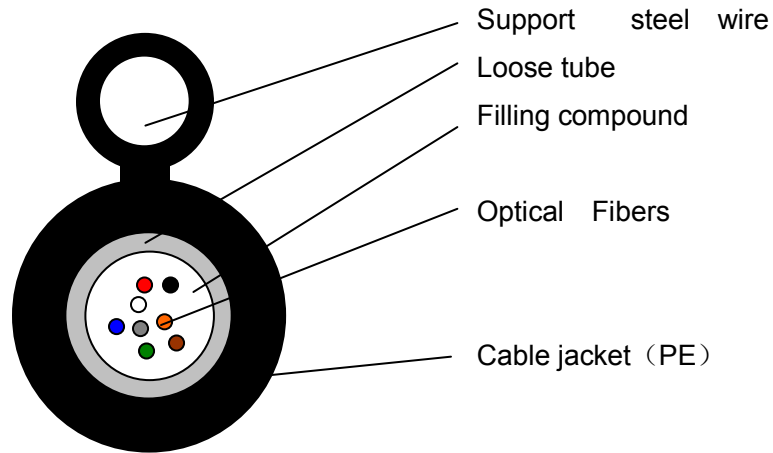
2. OPTICAL FIBER

Optical fiber characteristics (FPC G.652 FIBER)

Category	Description		Specifications
			G.652
Optical Specifications	Attenuation	@1310nm	≤0.36dB/km
		@1550nm	≤0.22dB/km
	Attenuation vs. Wavelength	1285~1330 @1310nm	≤0.05 dB/km
		1525~1575 @1550nm	≤0.05 dB/km
	Zero Dispersion Wavelength		1300~1324nm
	Zero Dispersion Slope		≤0.092ps/(nm ² .km)
	Dispersion	@1310nm	≤3.5 ps/nm.km
		@1550nm	≤18 ps/nm.km
	Cable Cutoff Wavelength(λ _{cc})		≤1260nm
Effective Group Index of Refraction	@1310nm	1.4675	
	@1550nm	1.4681	
Geometric Specifications	Mode Field Diameter	@1310nm	9.2±0.6μm
		@1550nm	10.4±0.8μm
	Cladding Diameter		125±1μm
	Cladding Non-Circularity		≤1.0%
	Coating Diameter		245±7μm
	Coating/Cladding Concentricity Error		≤12μm
Core/Cladding Concentricity Error		≤0.8μm	
Mechanical Specifications	Proof Test level		≥1.0%
	Fiber Curl Radius		≥4.0m
	Peak Coating Strip Force		1.3~8.9N

3. OPTICAL CABLE

3.1 Construction of cable



GYXTC8Y

Item	Description	
Fiber counts of cable	4~12	
Loose tube	Material	PBT
	No. fiber per tube	4~12
	No. of tube	1
	Diameter(mm)	Approx.3.0
	Filling compound Material	Thixotropic jelly
Support wire	Material	Galvanized steel wire
	Diameter	Φ 1.2
Cable sheath Thickness	Material	Black PE
	Cable core	*Nom. 1.0mm
	Support wire	*Nom. 1.0mm
Approx. cable dia.(mm)	* * Nom..5.1	
Approx. overall(mm)	Approx.9.8	

* The nominal sheath thickness may have a tolerance with $\pm 0.2\text{mm}$.

* * The nominal diameter may have a tolerance with $\pm 0.4\text{m}$

3.2 Fiber coding, The color coding of the optical fiber shall be in accordance with the table

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

4. TEST REQUIREMENTS

No	Item	Test standard	Method	Acceptance criteria
1	Tensile test	IEC-60794-1-E1	-Max. Tensile strength:600N -Sample length:50 meters -Time: 1minutes;	-Fiber strain at maximum Load: max. 0.33% -Attenuation increase \leq 0.1dB
2	Crush test	IEC-60794-1-E3	-Load:200N -Time: 1 minutes -Length: 100mm	-No splits or cracks in the outer jacket; - No fiber break
3	Impact test	IEC-60794-1-E4	-Impact energy: 100g - Height:1 meter -Impact points: min. 1 --Number of impacts: 5	-No splits or cracks in the outer jacket - No fiber break
5	Bending test	IEC-60794-1-E11	-Diameter of mandrel: 20×D -Number of turns/helix:10 -Number of cycles: 5	- No splits or cracks in the outer jacket - No fiber break
6	Temperature cycling test	IEC-60794-1-F1	-Temperature step: +20°C→0°C→+60°C→0°C→+60°C→+20°C -Time per each step: 12 hrs -Number of cycles: 2 cycles	-Attenuation variation for reference value(the attenuation to be measured before test at +20±3°C) \leq 0.1dB/km,
7	Water penetration test	IEC-60794-1-F5	-Water height: 1m -Sample length:3m -Duration of test: 24hrs	-No water leakage at the end of the sample
8	Drip test	IEC-60794-1-E14	-Five 0.3m samples suspended vertically in a climate chamber, raised temperature to +70°C	-No filling compound shall drip from tubes after 24 hr

5. PACKING AND DRUM

5.1 The cable is rounded on a non-returnable wooden drum. Both ends of cable are securely fastened to drum and sealed with a shrinkable cap to prevent ingress of moisture. The following information shall be marked on the outer sheath of the cable at an interval of about 1 meter.

- Cable type and number of optical fiber
- Manufacturer name
- Month and Year of Manufacture
- Cable length

The sequential number of the cable length shall be marked on the outer sheath of the cable at an interval of 1meter \pm 1%.

5.2 Drum marking, Each side of every wooden drum shall be permanently marked in a minimum of 2.5~3 cm high lettering with following:

- Manufacture name and logo
- Cable length
- Cable type and number of fibers
- Roll way
- Gross and net weight

-End of Specification-