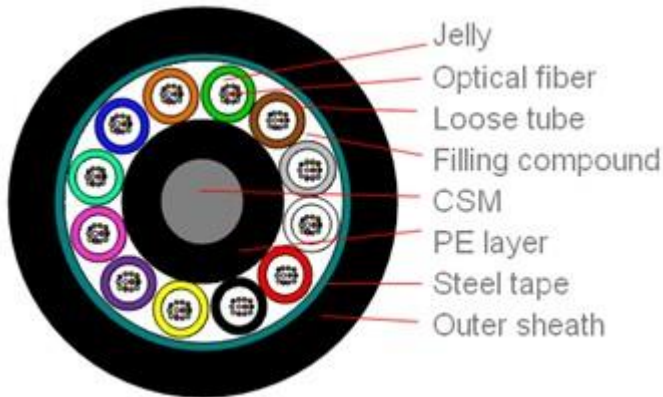


# GYTS

## 1. Cable cross-section



## 2. Cable Specification

### 2.1 Introduction

Loose tube construction, tubes jelly filled, elements (tubes and filler rods) laid up around metallic central strength member, filling compound filled in the apertures of the cable core, then steel tape armor and PE outer sheath.

### 2.2 Fiber color code

Fiber color in each tube starts from No. 1 Blue.

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Gray	White	Red	Black	Yellow	Purple	Pink	Aqua

### 2.3 Color codes for loose tube & filler rod

Tube color starts from No. 1 Blue. If there are fillers, the color is nature.

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Gray	White	Red	Black	Yellow	Purple	Pink	Aqua

The loose tubes of outer layer will be identifiable in accordance with the pilot color spectrum of following color sequence. The color of other tubes is nature.

1	2
Red	Green

### 2.4 Cable structure and parameter

SN	Item	Unit	Value			
1	No. of fibers	count	2~30	32~36	38~60	62~72
2	No. of fibers per tube	count	6	6	12	12
3	No. of elements	count	5	6	5	6
4	Cable diameter	mm	8.9	9.3	9.9	10.5
5	Cable weight	kg/km	90	103	110	134
6	Short term tension	N	1500	1500	1500	1500

7	Short term crush	N/100mm	1000	1000	1000	1000
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SN	Item	Unit	Value				
1	No. of fibers	count	74~96	98~120	122~144	146~216	218~288
2	Fibers per tube	count	12	12	12	6+12	9+15
3	No. of elements	count	8	10	12	18	24
4	Cable diameter	mm	12.0	13.4	14.8	14.8	16.8
5	Cable weight	kg/km	163	193	229	240	301
6	Short term tension	N	1500	1500	1500	1500	1500
7	Short term crush	N/100mm	1000	1000	1000	1000	1000

### 3. Characteristic of Optical Cable

#### 3.1 Min. bending radius for installation

Static: 15 x cable diameter

Dynamic: 20 x cable diameter

#### 3.2 Application temperature range

Operation: -40°C ~ +60°C

Installation: -15°C ~ +60°C

Storage/transportation: -40°C ~ +60°C

#### 3.3 Main mechanical & environmental performance test

Item	Test Method	Acceptance Condition
Tensile Strength IEC 794-1-2-E1	- Load: Short term tension - Length of cable: about 50m	- Fiber strain $\leq 0.6\%$ - No fiber break and no sheath damage.
Crush Test IEC 60794-1-2-E3	- Load: Short term crush - Load time: 1min	- Loss change $\leq 0.05\text{dB}@1550\text{nm}$ - No fiber break and no sheath damage.
Impact Test IEC 60794-1-2-E4	- Points of impact: 3 - Times of per point: 1 - Impact energy: 4.5J	- Loss change $\leq 0.1\text{dB}@1550\text{nm}$ - No fiber break and no sheath damage.

### 4. Characteristic of Optical Fiber

#### G652D fiber information

Mode field diameter (1310nm):	9.2 $\mu\text{m}$ $\pm$ 0.4 $\mu\text{m}$
Mode field diameter (1550nm):	10.4 $\mu\text{m}$ $\pm$ 0.8 $\mu\text{m}$
Cut off wavelength of cabled fiber ( $\lambda_{cc}$ ):	$\leq 1260\text{nm}$
Attenuation at 1310nm:	$\leq 0.36\text{dB/km}$
Attenuation at 1550nm:	$\leq 0.22\text{dB/km}$
Bending loss at 1550nm (100 turns, 30mm radius):	$\leq 0.05\text{dB}$
Dispersion in the range 1288 to 1339nm:	$\leq 3.5\text{ps}/(\text{nm}\cdot\text{km})$
Dispersion at 1550nm:	$\leq 18\text{ps}/(\text{nm}\cdot\text{km})$
Dispersion slope at zero dispersion wavelength:	$\leq 0.092\text{ps}/(\text{nm}^2\cdot\text{km})$