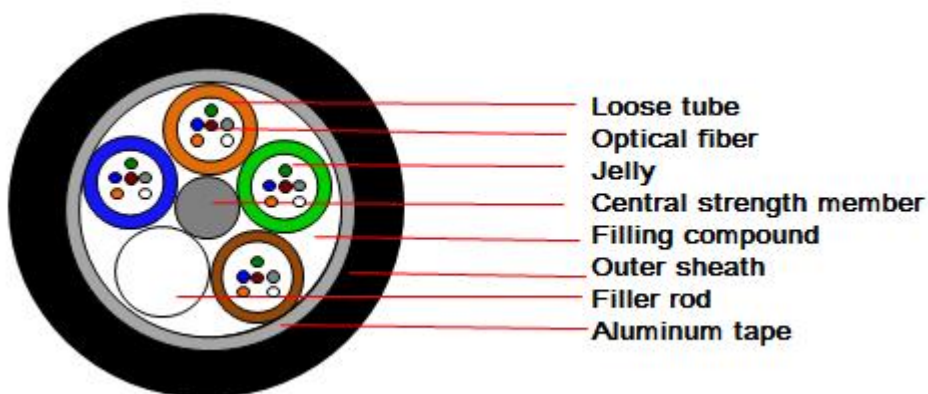


# GYTA

Outdoor optical cable for communication with metal reinforcing member, loose tube stranded and filled, aluminum-polyethylene bonded sheath

## Cable cross-section(only for reference, not to scale)



## Cable Specification

### 1 Introduction

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

### 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 |

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

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

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

### 4 Cable structure and parameter

| SN | Item                        | Unit    | Value |     |      |
|----|-----------------------------|---------|-------|-----|------|
| 1  | No. of fibers               | count   | 24    | 48  | 72   |
| 2  | No. of fibers per tube(max) | count   | 6     | 12  | 12   |
| 3  | No. of elements             | count   | 5     | 5   | 6    |
| 4  | Cable diameter              | mm      | 8.7   | 9.6 | 10.3 |
| 5  | Cable weight                | kg/km   | 75    | 90  | 118  |
| 6  | Short term tension          | N       | 1500  |     |      |
| 7  | Short term crush            | N/100mm | 1000  |     |      |

## Characteristic of Optical Cable

1 Min. bending radius for installation

Static: 10 x cable diameter

Dynamic: 20 x cable diameter

2 Application temperature range

Operation: -40°C ~ +70°C

Installation: -10°C ~ +60°C

Storage/transportation: -40°C ~ +70°C

3 Main mechanical & environmental performance test

| Item                                 | Test Method                                                                     | Acceptance Condition                                                                      |
|--------------------------------------|---------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| Tensile Strength<br>IEC 60794-1-2-E1 | - Load: Short term tension<br>- Length of cable: about 50m<br>- Load time: 1min | - Fiber strain $\leq 0.6\%$<br>- No fiber break and no sheath damage.                     |
| Crush Test<br>IEC 60794-1-2-E3       | - Load: Short term crush<br>- Load time: 1min                                   | - Loss change $\leq 0.1\text{dB}@1550\text{nm}$<br>- No fiber break and no sheath damage. |

## Characteristic of Optical Fiber

*G652D fiber information*

Mode field diameter (1310nm):

9.2 $\mu\text{m}$ ±0.4 $\mu\text{m}$

Mode field diameter (1550nm):

10.4 $\mu\text{m}$ ±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:

$\leq 3.5\text{ps}/(\text{nm}\cdot\text{km})$

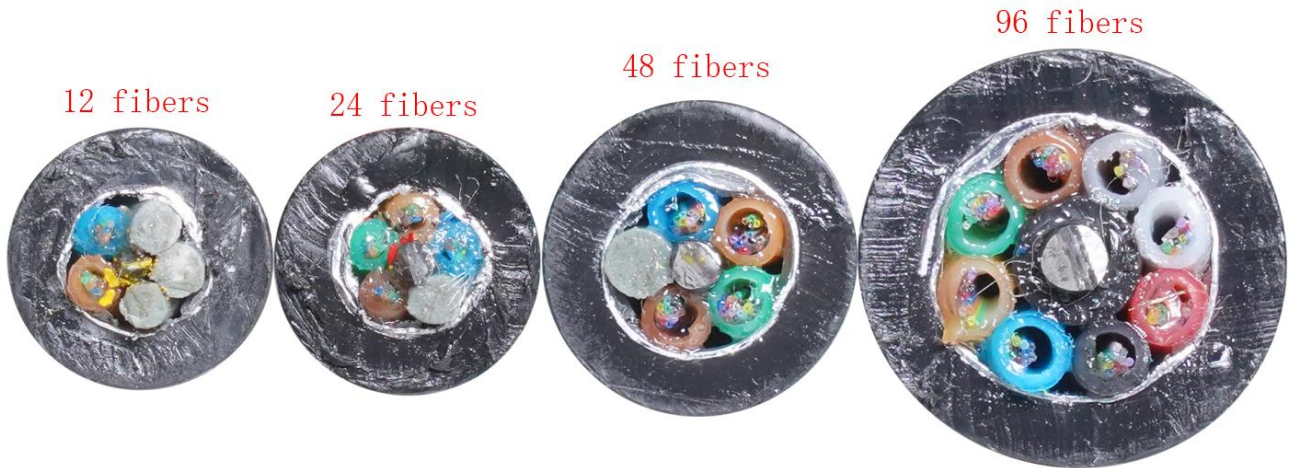
Dispersion at 1550nm:

$\leq 18\text{ps}/(\text{nm}\cdot\text{km})$

Dispersion slope at zero dispersion wavelength:

$\leq 0.092\text{ps}/(\text{nm}^2\cdot\text{km})$

## Product Display



GYTA

For reference only, the actual product shall prevail