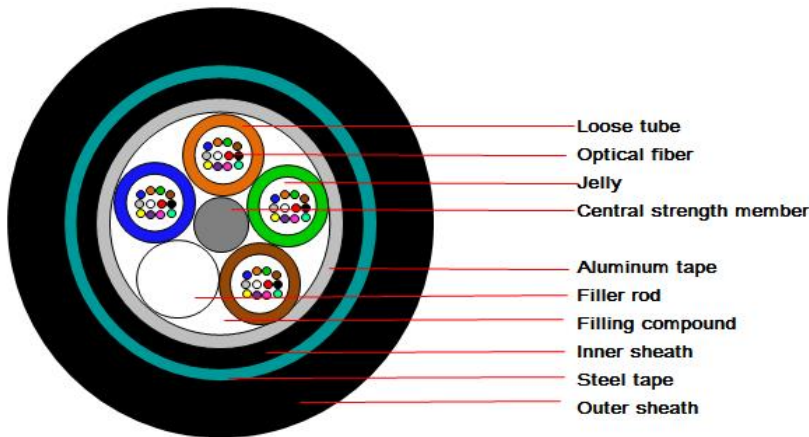


GYTA53

Outdoor optical cable for communication featuring a metal reinforcing member, loose tube stranded and filled, aluminum-polyethylene bonded sheath, longitudinally wrapped corrugated steel tape armor, and polyethylene jacket.

Cable cross-section



Cable Specification

1 Introduction

Loose tube construction, tubes with jelly filled, elements (tubes and filler rods when necessary) laid up around metallic central strength member, filling compound filled in the apertures of the cable core, aluminum tape and PE inner sheath, then steel tape armored 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

Tube color starts from No. 1 Blue.

1	2	3	4	5	6	7	8
Blue	Orange	Green	Brown	Gray	White	Red	Black

4 Cable structure and parameter

Item	Unit	Value					
No. of fibers	count	4	12	24	48	72	96
No. of fibers per tube	count	4	6	6	12	12	12
No. of elements	count	6	6	6	5	6	8
Cable diameter(±5%)	mm	11.6	11.6	11.6	12.1	12.8	14.6

Cable weight(approx.)	kg/km	138	140	142	150	180	118
Short term tension	N	3000					
Short term crush	N/100mm	3000					

Characteristic of Optical Cable

1 Min. bending radius

Static: 12.5 x cable diameter

Dynamic: 25 x cable diameter

2 Application temperature range

Operation: - 30℃ ~ +70℃

Installation: - 15℃ ~ +50℃

Storage/transportation: - 30℃ ~ +70℃

3 Main mechanical & environmental performance test

Item	Test Method	Acceptance Condition
Tensile Strength IEC 60794-1-2-E1	- Load: Short term tension - Length of cable: about 50m - Load time: 1min	- 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 $\leq 0.1\text{dB}@1550\text{nm}$ - No fiber break and no sheath damage.

Characteristic of Optical Fiber

G652D fiber information

Mode field diameter (1310nm):	9.2 μm ±0.4 μm
Mode field diameter (1550nm):	10.4 μm ±0.5 μm
Cladding diameter:	125 μm ±1.0 μm
Coating diameter:	245 μm ±7 μm
Cladding coating concentricity error	$\leq 12\mu\text{m}$
Cut off wavelength of cabled fiber (λ_{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):	$\leq 0.05\text{dB}$
Zero dispersion wavelength:	1300nm-1324nm
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:	$\leq 0.092\text{ps}/(\text{nm}^2\cdot\text{km})$