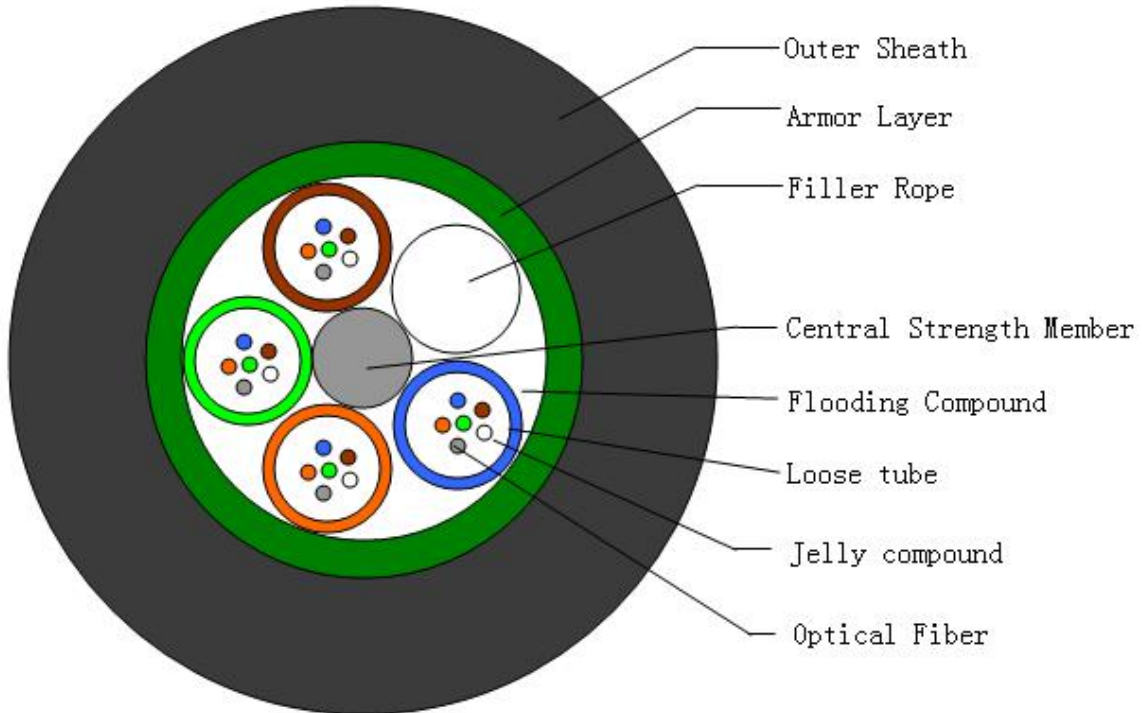


## Outdoor Fiber Optical Cable(GYTS)

### Cable Design



### Technical data

No. of cable		2~30	32~60	62~72	74~96
Fiber Model		G.652D			
Design(StrengthMember+Tube&Filler)		1+5	1+5	1+6	1+8
Central Strength Member	Material	Steel Wire			
	Diameter ( $\pm 0.05$ ) mm	1.5	1.5	2.1	2.1
Loose Tube	Material	PBT			
	Diameter ( $\pm 0.06$ ) mm	1.8	2.1	2.1	2.1
	Thickness ( $\pm 0.03$ ) mm	0.32	0.35	0.35	0.35
	The Max.Core NO./Tube	6	12	12	12
Filler Rope	Material	LDPE			
	Colour	White			
	Diameter ( $\pm 0.06$ ) mm	1.8	2.1	2.1	2.1
Water Blocking layer (Material)		Flooding Compound			
Armoring	Material	Steel Strip			
	Thickness ( $\pm 0.03$ ) mm	0.25			
Outer Sheath	Material	MDPE			
	Thickness ( $\pm 0.2$ ) mm	1.8			
Cable Diameter		9.6	10.5	11.1	12.7
Cable Weight		92	108	132	170

Min. bending radius	Without Tension	10.0× Cable- φ
	Under Maximum Tension	20.0× Cable- φ
Temperature range (°C)	Installation	-20~+60
	Transport&Storage	-40~+70
	Operation	-40~+70

**Fibre&Loose Tube Colours**

<b>NO.</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
<b>Colour</b>	<b>Blue</b>	<b>orange</b>	<b>green</b>	<b>brown</b>	<b>gray</b>	<b>white</b>
						
	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>
	<b>red</b>	<b>black</b>	<b>Yellow</b>	<b>Violet</b>	<b>Pink</b>	<b>Aqua</b>
						

**The properties of single mode optical fiber (ITU-T Rec. G.652.D)**

<b>Item</b>	<b>Specification</b>
Fiber type	Single mode
Fiber material	Doped silica
Attenuation coefficient	
@ 1310 nm	≤ 0.36 dB/km
@ 1383 nm	≤ 0.32 dB/km
@ 1550 nm	≤ 0.22 dB/km
@ 1625 nm	≤ 0.30 dB/km
Point discontinuity	≤ 0.05 dB
Cable cut-off wavelength	≤ 1260 nm
Zero-dispersion wavelength	1300 ~ 1324 nm
Zero-dispersion slope	≤ 0.092 ps/(nm <sup>2</sup> .km)
Chromatic dispersion	
@ 1288 ~ 1339 nm	≤3.5 ps/(nm. km)
@ 1271 ~ 1360 nm	≤5.3 ps/(nm. km)
@ 1550 nm	≤18 ps/(nm. km)
@ 1625 nm	≤22 ps/(nm. km)
PMD <sub>Q</sub> (Quadrature average*)	≤0.2 ps/km <sup>1/2</sup>
Mode field diameter @ 1310 nm	9.2±0.4 μm
Core / Clad concentricity error	≤ 0.5 μm
Cladding diameter	125.0 ± 0.7 μm
Cladding non-circularity	≤1.0%
Primary coating diameter	245 ± 10 μm
Proof test level	100 kpsi (=0.69 Gpa), 1%

Temperature dependence 0oC~ +70oC @ 1310 & 1550nm	≤ 0.1 dB/km
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**Application:**

NO.	Item	Requirement	
1	Allowable Tensile Strength	Short Term	1500 N
		Long Term	600 N
2	Allowable Crush Resistance	Short Term	1000 (N/100mm)
		Long Term	300 (N/100mm)

**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 ≤ 0.36% - Loss change ≤ 0.1 dB @1550 nm - No fiber break and no sheath damage.
Crush Test IEC 60794-1-2-E3	- Load: Short term crush - Load time: 1min	- Loss change ≤ 0.05dB@1550nm - 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: 5J	- Loss change ≤ 0.1dB@1550nm - No fiber break and no sheath damage.
Temperature Cycling Test YD/T901-2001-4.4.4.1	- Temperature step: +20°C→-40°C→+70°C →+20°C - Time per each step: 12 hrs - Number of cycle: 2	- Loss change ≤ 0.05 dB/km@1550 nm - No fiber break and no sheath damage.