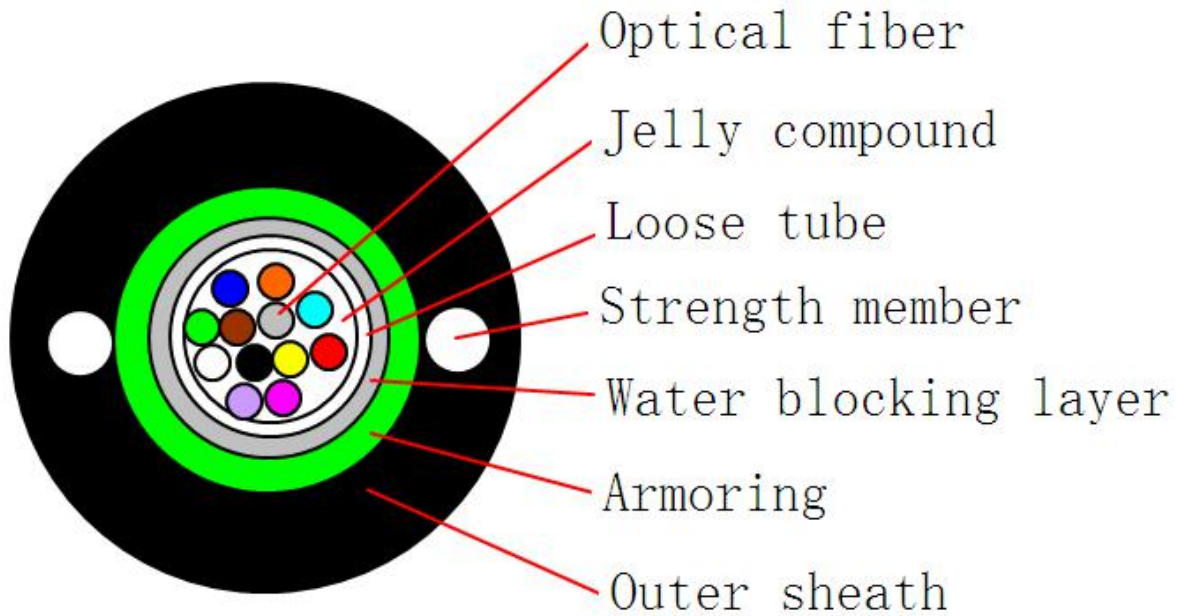


Central Tube Armored Fiber Optical Cable(GYXTW)
Cable Design

Technical data

No. of cable		2~8	10~12	14~24
Fiber Model		G.652D		
Strength Member	Material	Steel Wire		
	Diameter (± 0.05) mm	1.0	1.0	1.2
Loose Tube	Material	PBT		
	Diameter (± 0.06) mm	2.1	2.4	3.0
	Thickness (± 0.03) mm	0.32	0.35	0.4
	The Max.Core NO./Tube	8	12	24
Water Blocking layer (Material)		Water Blocking Tape		
Armoring	Material	Steel Strip		
	Thickness (± 0.03) mm	0.25		
Outer Sheath	Material	MDPE		
	Thickness (± 0.2) mm	2.0		
Cable Diameter (± 0.2) mm		8.1	8.3	9.6
Cable Weight (± 5) kg/km		63	65	95
Min. bending radius	Without Tension	$10.0 \times \text{Cable-} \phi$		
	Under Maximum Tension	$20.0 \times \text{Cable-} \phi$		
Temperature	Installation	-20~+60		



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range (°C)	Transport&Storage	-40~+70
	Operation	-40~+70

Fibre Colours

No.	1	2	3	4	5	6
Color	Blue	Orange	Green	Brown	Gray	White
No.	7	8	9	10	11	12
Color	Red	Black	Yellow	Violet	Pink	Aqua
No.	13	14	15	16	17	18
Color	Blue+P	Orange+P	Green+P	Brown+P	Gray+P	White+P
No.	19	20	21	22	23	24
Color	Red+P	Natural+P	Yellow+P	Violet+P	Pink+P	Aqua+P

"P" means Point mark

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

Item	Specification
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 ² .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 _Q (Quadrature average*)	≤0.2 ps/km ^{1/2}
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



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Proof test level	100 kpsi (=0.69 Gpa), 1%
Temperature dependence 0oC~ +70oC @ 1310 & 1550nm	≤ 0.1 dB/km

Application:

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