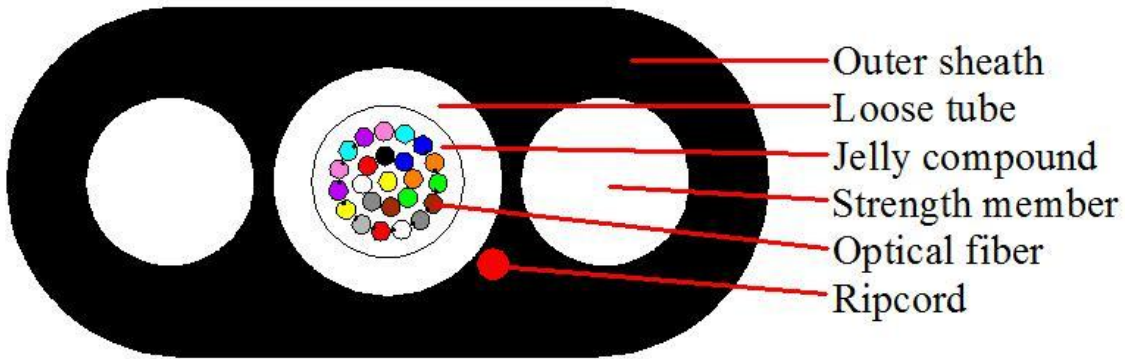


Flat Fiber Optic Cable PE - GYFXTBY



Technical data

No. of cable		1-12	14-24
Fiber Model		G657A1	
Loose tube	Material	PBT	
	Thickness	0.35 (±0.05) mm	
	Diameter	2.4 (±0.1) mm	2.8 (±0.1) mm
	Color	Natural/Blue	
Strength Member	Material	FRP	
	Diameter	1.5 (±0.05) mm	
	No.	2	
Outer Sheath	Material	HDPE	
	Color	Black	
Cable Diameter		(4.0±0.2)×(8.0±0.2)mm	
Cable Weight		32 (±5) kg/km	
Max. allowable tension (Short-term)		1335N	
Max. allowable tension (Long-term)		405N	
Crush resistance test		1000N/10cm	
Min. bending radius	Static	20x cable Ø	
	dynamic	10x cable Ø	
Temperature range (°C)	Installation	-30~+70	
	Transport&Storage	-40~+70	
	Operation	-40~+70	

Fiber Colors

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. G657A1)

Characteristic	condition	data	unit
Optical properties			
Attenuation	1310nm	≤0.35	dB/km
	1383nm(氢老化后)	≤0.35	dB/km
	1490nm	≤0.23	dB/km
	1550nm	≤0.22	dB/km
	1625nm	≤0.23	dB/km
Relative wavelength attenuation @1310nm @1550nm	1285~1330nm	≤0.05	dB/km
	1525~1575nm	≤0.05	dB/km
Dispersion in the wavelength range of	1285~1340nm	≤3.5	ps/(nm.km)
	1550nm	≤18	ps/(nm.km)
Zero dispersion wavelength		1300~1324	nm
A zero-dispersion slope		≤0.092	ps/(nm ² .km)
Polarization Mode Dispersion Coefficient PMD Single fiber maximum Fiber link value (M=20, Q=0.01%) Typical value		≤0.2	ps/
		≤0.1	ps/
		0.04	ps/
Cable cut-off wavelength (λ _{cc})		≤1260	nm
Mode field diameter (MFD)	1310nm	8.8±0.4	μm
	1550nm	9.8±0.5	μm
Attenuation discontinuities	1310nm	≤0.05	dB
	1550nm	≤0.05	dB
Geometric characteristics			
Core diameter		125±0.7	μm
Cladding roundness		≤0.7	%
Coating diameter		245±5	μm
Coating / package concentricity error		≤12.0	μm
Core / package concentricity error		≤0.5	μm
The warpage (radius)		≥4	m
Environmental characteristics (1310nm、1550nm、1625nm)			
Temperature additional attenuation	-60℃ ~+85℃	≤0.05	dB/km
Temperature-humidity cycle additional attenuation	-10℃ ~+85℃, 98% Relative humidity	≤0.05	dB/km
Flooding additional attenuation	23℃, 30 days	≤0.05	dB/km

Hot and humid additional attenuation	85°C 和 85% Relative humidity, 30 days	≤0.05	dB/km
Dry heat aging	85°C	≤0.05	dB/km
Mechanical properties			
Screening tension		≥9.0	N
The macro bend Additional attenuation 10 CircleΦ30mm 10 CircleΦ30mm 1 CircleΦ20mm 1 CircleΦ20mm	1550nm	≤0.025	dB
	1625nm	≤1.0	dB
	1550nm	≤0.75	dB
	1625nm	≤1.5	dB
Coating peeling force	Typical average	1.5	N
Dynamic fatigue parameters		≥20	

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.