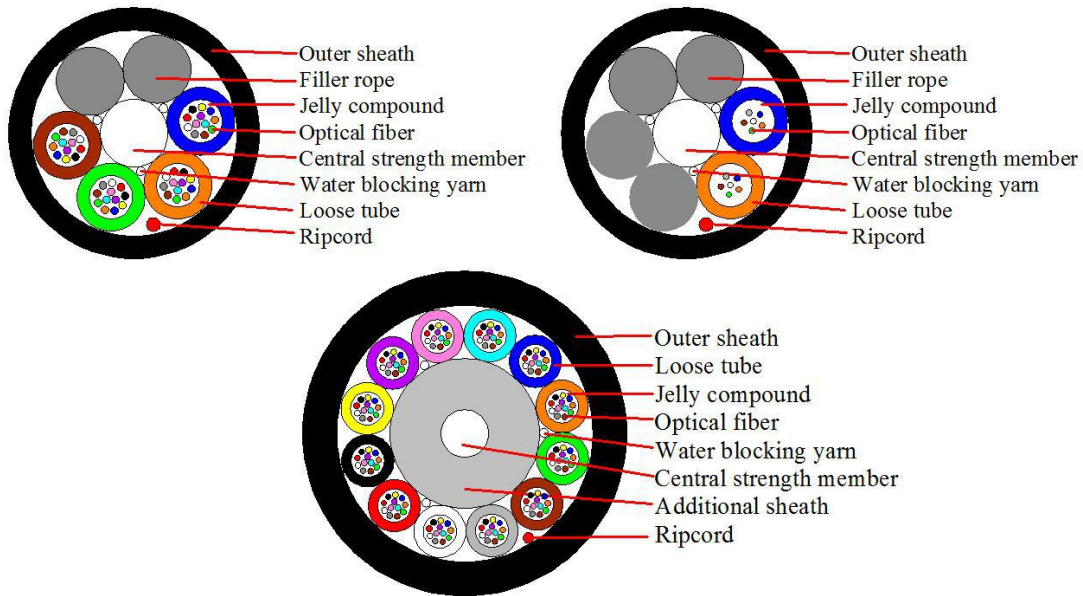


# Air Blown Fiber Optic Cable 144cores, G652D SM PE (GCYFTY)



## Technical data

No. of cable		4-48	96	144	288
Fiber Model		G.652D			
Design(Strength Member +Tube &Filler)		1+6	1+8	1+12	1+9+15
Central Strength Member	Material	FRP			
	Diameter (±0.06) mm	1.5	1.5	2.1	
Loose Tube	Material	PBT			
	Diameter (±0.06) mm	1.4		1.4	
	Thickness (±0.03) mm	0.20		0.20	
	The Max.Core NO./Tube	4/6/12	12	12	12
Filler rope	Material	PP			
	Diameter (±0.06) mm	1.4			
	NO.	2/4	0	0	0
Additional sheath	Material	PE			
	Diameter (±0.1) mm	0	2.3	4.1	2.7
Outer Sheath	Material	MDPE			
	Thickness (±0.1) mm	0.5			
Cable Diameter (±0.2) mm		5.5	6.2	8.2	10.0
Cable Weight (±5) kg/km		23	30	56	70
Min. bending radius	Without Tension	15× Cable- φ			
	Under Maximum Tension	30× Cable- φ			
Temperature range (°C)	Installation	-20~+60			
	Transport&Storage	-40~+70			
	Operation	-40~+70			

**Application:**

NO.	Item	Requirement		
1	Allowable Tensile Strength	Short Term	600 N(4-144C)	1000N(288C)
		Long Term	200N	300N
2	Allowable Crush Resistance	Short Term	450 (/100mm)	
		Long Term	150 (/100mm)	

**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

**Tube 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

**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 @ 1383 nm @ 1550 nm @ 1625 nm	≤ 0.36 dB/km ≤ 0.32 dB/km ≤ 0.22 dB/km ≤ 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 @ 1271 ~ 1360 nm @ 1550 nm @ 1625 nm	≤3.5 ps/(nm. km) ≤5.3 ps/(nm. km) ≤18 ps/(nm. km) ≤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 um

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

**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/T901-2001-4.4.1	- 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.