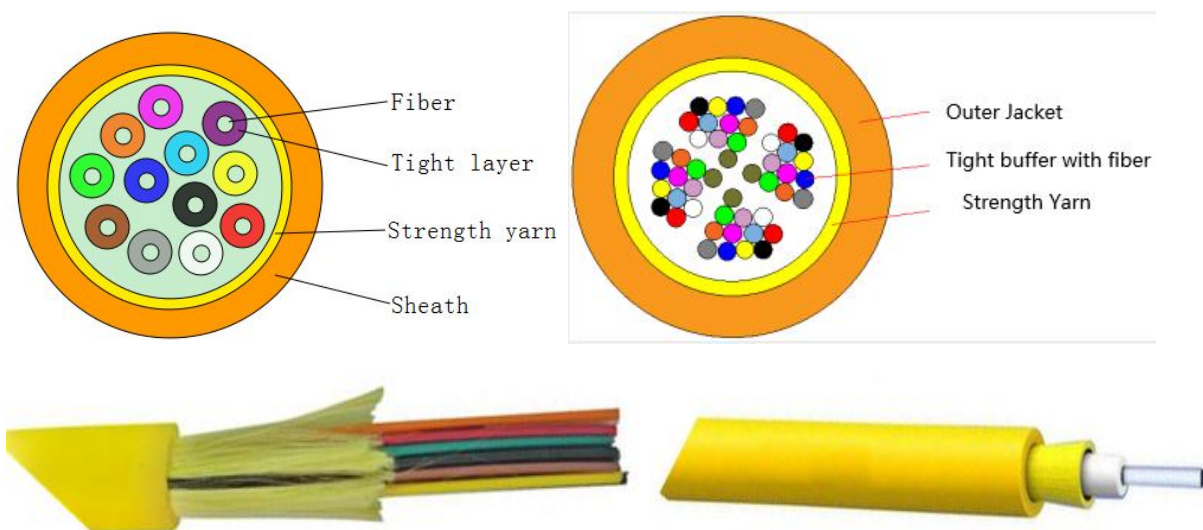


Specification

FOR Indoor Optic Cable [GJFJH]

1. CABLE CONSTRUCTION



1.1. STRUCTURE SPECIFICATION

Fiber count		12	24	48
Tight Fiber	OD(mm):	0.85±0.05		
	Material:	PVC		
Strength Number		High strength yarn		
Sheath material		LSZH		
Sheath	thickness (mm)	1.0±0.1	1.3±0.1	1.4±0.1
OD of cable(mm)		6.5±0.1	8.5±0.1	11.2±0.1
Net weight (kg/km)		39±5	68±5	111±5
Tight buffer color code		Blue, orange, green, brown, slate, white, red, black, yellow, violet, pink, Aqua	#1-12: Blue, orange, green, brown, slate, white, red, black, yellow, violet, pink, Aqua #13-24: Blue+P, orange+P, green+P, brown+P, slate+P, white+P, red+P, black+WP, yellow+P, violet+P, pink+P, Aqua+P	#1-12: Blue, orange, green, brown, slate, white, red, black, yellow, violet, pink, Aqua #13-24: Blue+P, orange+P, green+P, brown+P, slate+P, white+P, red+P, black+WP, yellow+P, violet+P, pink+P, Aqua+P #25-36: Blue+2P, orange+2P, green+2P, brown+2P, slate+2P, white+2P, red+2P, black+2WP, yellow+2P, violet+2P, pink+2P, Aqua+2P #37-48: Blue+3P, orange+3P, green+3P, brown+3P, slate+3P, white+3P, red+3P, black+3WP, yellow+3P, violet+3P, pink+3P, Aqua+3P

1.2.Tight Buffer Color Code

NO.	1	2	3	4	5	6
Color	Blue	Orange	Green	Brown	Slate	White
NO.	7	8	9	10	11	12
Color	Red	Black	Yellow	Violet	Pink	Aqua

2.Performance Parameters Of the Optical Fiber

2.1 Single Mode Fiber

LTEMs	UNITS	SPECIFICATION	
		G652D	G657A
Fiber type			
Attenuation	dB/km	1310nm≤ 0.4 1550nm≤ 0.3	
Chromatic Dispersion	ps/nm.km	1310nm≤ 3.5 1550nm≤ 18 1625nm≤ 22	
Zero Dispersion Slope	ps/nm ² .km	≤ 0.092	
Zero Dispersion Wavelength	nm	1300 ~ 1324	
Cut-off Wavelength (λ_{cc})	nm	≤ 1260	
Attenuation vs. Bending (60mm x100turns)	dB	(30mm radius, 100ring) ≤ 0.1 @ 1625nm	(10mm radius, 1ring)≤ 1.5 @ 1625nm
Mode Field Diameter	μm	9.2 ± 0.4 at 1310nm	9.2 ± 0.4 at 1310nm
Core-Clad Concentricity	μm	≤ 0.5	≤ 0.5
Cladding Diameter	μm	125±1	125±1
Cladding Non-circularity	%	≤ 0.8	≤ 0.8
Coating Diameter	μm	245±5	245±5
Proof Test	Gpa	≥ 0.69	≥ 0.69

2.2 Multi Mode Fiber

ITEMS		UNITS	SPECIFICATION				
			62.5/125	50/125	OM3-150	OM3-300	OM4-550
Fiber Core Diameter		μm	62.5±2.5	50.0±2.5	50.0±2.5		
Fiber Core Non-circularity		%	≤6.0	≤6.0	≤6.0		
Cladding Diameter		μm	125.0±1.0	125.0±1.0	125.0±1.0		
Cladding Non-circularity		%	≤2.0	≤2.0	≤2.0		
Coating Diameter		μm	245±10	245±10	245±10		
Coat-Clad Concentricity		μm	≤12.0	≤12.0	≤12.0		
Coating Non-circularity		%	≤8.0	≤8.0	≤8.0		
Core-Clad Concentricity		μm	≤1.5	≤1.5	≤1.5		
Attenuation	850nm	dB/km	3.0	3.0	3.0		
	1300nm	dB/km	1.5	1.5	1.5		
OFL	850nm	MHz . km	≥160	≥200	≥700	≥1500	≥3500
	1300nm	MHz . km	≥300	≥400	≥500	≥500	≥500
The biggest theory numerical aperture		/	0.275±0.015	0.200±0.015	0.200±0.015		

3. Mechanical and Environmental Performance of the Cable

NO.	ITEMS	TEST METHOD	ACCEPTANCE CRITERIA
1	Tensile Loading Test	#Test method:IEC 60794-1-E1 -. Long-tensile load: 200N -. Short-tensile load: 600N -. Cable length: ≥50m	-. Attenuation increment@1550nm:≤0.2dB -. No jacket cracking and fiber breakage
2	Crush Resistance Test	#Test method:IEC 60794-1-E3 -.Long-tensile load: 300 N/100mm -.Short-tensile load: 1000 N/100mm Load time: 1 minutes	-. No fiber breakage
3	Impact Resistance Test	#Test method:IEC 60794-1-E4 -.Impact height: 1 m -.Impact weigh: 100 g -.Impact point: ≥3	-. No fiber breakage

		-.Impact frequency: $\geq 1/\text{point}$	
4	Repeated Bending	#Test method: IEC 60794-1-E6 -.Mandrel diameter: 40H -.Subject weight: 4kg -.Bending frequency: 100times -.Bending speed: 2s/time	-. No fiber breakage
5	Torsion Test	#Test method: IEC 60794-1-E7 -.Length: 1m -.Subject weight: 2kg -.Angle: ± 180 degree -.Frequency: $\geq 10/\text{point}$	-. No fiber breakage
6	Temperature Cycling Test	#Test method: IEC 60794-1-F1 -.Temperature steps: $+20^{\circ}\text{C}$ 、 -10°C 、 $+60^{\circ}\text{C}$ 、 $+20^{\circ}\text{C}$ -.Testing Time: 8 hours/step -.Cycle index: 2	-. Attenuation increment@1550nm: $\leq 0.3\text{dB}$ -. No jacket cracking and fiber breakage
7	Temperature	Operating: $-10^{\circ}\text{C} \sim +60^{\circ}\text{C}$ Store/Transport : $-10^{\circ}\text{C} \sim +60^{\circ}\text{C}$ Installation $-10^{\circ}\text{C} \sim +60^{\circ}\text{C}$	

4. FIBER OPTIC CABLE BENDING RADIUS

Static bending: ≥ 10 times than cable out diameter

Dynamic bending: ≥ 20 times than cable out diameter.

5. PACKAGE AND MARK

5.1 PACKAGE

Not allowed two length units of cable in one drum,. Two ends should be packed inside drum, reserve length of cable not less than 1meters.

5.2 MARK

Cable Mark: Brand、Cable type、Fiber type and counts、Year of manufacture、Length marking 。

6. TEST REPORT

Test report and certification supplied.

