

SHENZHEN HANXIN COMMUNICATION OPTICAL FIBER CABLE CO.,LTD

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CABLE SPECIFICATION
CABLE SINGLE MODE - GYFXY – 04/24 CORE –
NON- METALLIC OPTICAL CABLE (NMOC)

Cable construction:

Temperature Range
 Operating -40°C to +70°C Storage -50°C to +70°C Installation -30°C to +70°C
 Bending Radius:
 Static 10D
 Dynamic 20D
 Two parallel steel wire or Non-metallic FRP wire to enhance tensile resistant
 UV and moisture-resistant designs

Features**04-24FO**

Extremely refined refractive index profile
 Low differential mode delay (DMD)
 Low attenuation
 Uni tube gel-filled construction for superior fiber protection
 Superior geometry, uniformity
 Two parallel Non-metallic FRP wire to enhance tensile resistant
 UV and moisture-resistant designs
 Temperature.

Benefits and Applications

- Data centers
- Storage Area networks
- High performance computing centers
- Central offices
- Local Area Network
- Optimized performance in tight-buffer cable applications
- High resistance to micro-bending

- Stable performance over a wide range of environmental conditions.

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Information:

ITEMS		DESCRIPTION
Fiber count		04-24FO
Loose tube	OD(mm)	($\geq 2.0\text{mm}$)
	Materia	PBT
Water Block material		Water bloking compound
Armored		Corrugation Steel tape
Strength Number (FRP)		$0.8\text{mm}\pm 2$
Sheath	Thichness:	2.2mm
	Materil:	MDPE
ODF of cabe (mm)		7.0

Description:

The fibers 9/125, are positioned in a loose tube made of a high modulus plastic. The tubes are filled with a water- resistant afilling compound. The tube is wrapped with a layer of PSP longitudinally. Between the PSP and the loose tube water-blocking material is applied to keep the cable compact and watertight. Two parallel FRP wires are placed at the two sides. The cable is completed with a polyethylene (PE) sheath.

Characteristics	Conditions	Specified Values	Units
Geomery Characteristics			
Core Diameter		9 ± 2.5	(μm)
Core Non-Circularity		≤ 50	(%)
Cladding Diameter		125.0 ± 1.0	(μm)
Cladding Non-Circularity		≤ 0.1	(%)
Coating Diameter		245 ± 7	(μm)
Coating/Cladding Concentricity Error		≤ 10.0	(μm)
Coating Non-Circularity		≤ 6.0	(%)
Core/Cladding Concentricity Error		≤ 1.0	(μm)
Delivery Length		Up to 8.8	(km.reel)
Optical fiber type		Single mode	G652
Waveband		1310/1550	nm
IL	1310 nm	0.36	dB
	1550 nm	0.23	dB
Max.Tension	Long-term	250	M

	Short- Term	550	M
Max. Crushing Resistance	Long-term	300	N/100mm
	Short- Term	1000	N/100mm
Min. Bending Radius	Long-term	30D	(Dynamic)
	Short- Term	15D	(Static)

Construction

- 1.1 jacket
- 1.2 Parallel steel strengthmember
- 1.3 Corrugated steel tapsarmored (PSP)
- 1.4 Water blocking taps PBT LooseTube
- 1.5 Jelly corefibers

Fiber colorcode

The fiber in the loose tube is colored according to the following color code. Each color is distinguishable from the other under normal light conditions

No	1	2	3	4	5	6	7	8	9	10	11	12
Color	1	2	3	4	5	6	7	8	9	10	11	12
No	13	14	15	16	17	18	19	20	21	22	23	24
Color	1	2	3	4	5	6	7	8	9	10	11	12

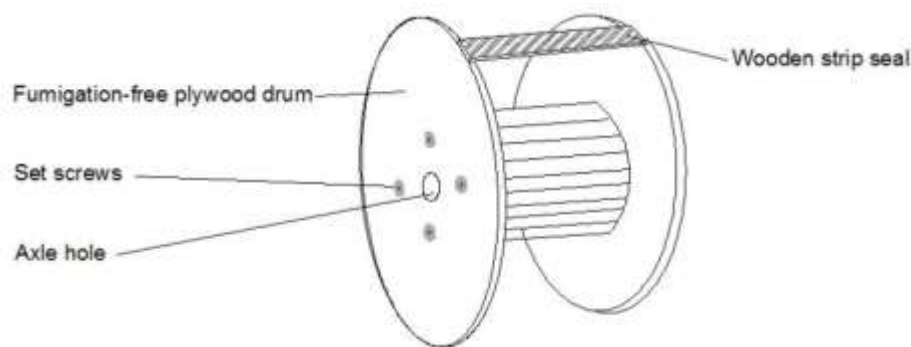
Testing Cable:

No	ITEMS	TEST METHOD	ACCEPTANCE CRITERIA
1	Tendile Loading Test	#test method: IEC 60797-1-E1 - Long-tensile load: 600N - Short-tensile load: 1500N -Cable lenth: $\geq 50\text{m}$	- Attenuation incermant@1550nm $\leq 0.1\text{dB}$ - No jacket cracking and fiber brackage
2	Crush Resistance Test	#Test method: IEC 60794-1-E4 - Long load: 300N/100mm - Short Load: 1000N/100mm - Load time: 1 minutes	- Attenuation incermant@1550nm $\leq 0.1\text{dB}$ - No jacket cracking and fiber brackage
3	Impact Resistance Test	#Test method: IEC 60794-1-E4 - Impact height: 1m - Impact weigh: 450g - Impact point: ≥ 5 - Impact frequency: $\geq 3/\text{point}$	- Attenuation incermant@1550nm $\leq 0.1\text{dB}$ - No jacket cracking and fiber brackage
4	Repeated Bending	#Test method: IEC 60794-1-E6 - Mandre diameter: 20D (D=cable diameter) - Subject weight: 15kg - Bending frequency: 30 times - Bending speed: 2s/time	- Attenuation incermant@1550nm $\leq 0.1\text{dB}$ - No jacket cracking and fiber brackage
5	Torsion Test	#Test method: IEC 60794-1-E7 - Length: 1m - Subject weight: 25kg - AngleL ± 180 degree - Frequency: $\geq 10/\text{point}$	- Attenuation incermant@1550nm $\leq 0.1\text{dB}$ - No jacket cracking and fiber brackage

6	Water Penetration Test	#Test method: IEC 60794-1-F5B - Height of pressure head: 1m - Length of specimen: 3m - Test time: 24 hours	- no leakage through the open cable end
7	Temperature Cycling Test	#Test method: IEC 60794-1-F1 - Temperature steps: +20°C to 40°C, +70°C, +20°C - Testing time 24 hours/ step - Cycle index: 2	- Attenuation incermant@1550nm≤0.1dB - No jacket cracking and fiber brackage
8	Drop performance	#Test method: IEC 60794-1-E14 - Testing length: 30cm - Temperature range: 70±2°C - Testinng time: 24 hours	- No filling compound drop out
9	Temperature	Operating: -40°C to +60°C Store/ Transport: -50°C to +70°C Installation : -20°C to +60°C	

Packing and Drum

- Each single length of cable shall be reeled on Drum suitable for long-distanceShipment.
- Cables should be protected from moisture; kept away from high temperature and fire sparks; protected from over bending and crushing; protected from mechanical stress anddamage



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