

Specification

FOR

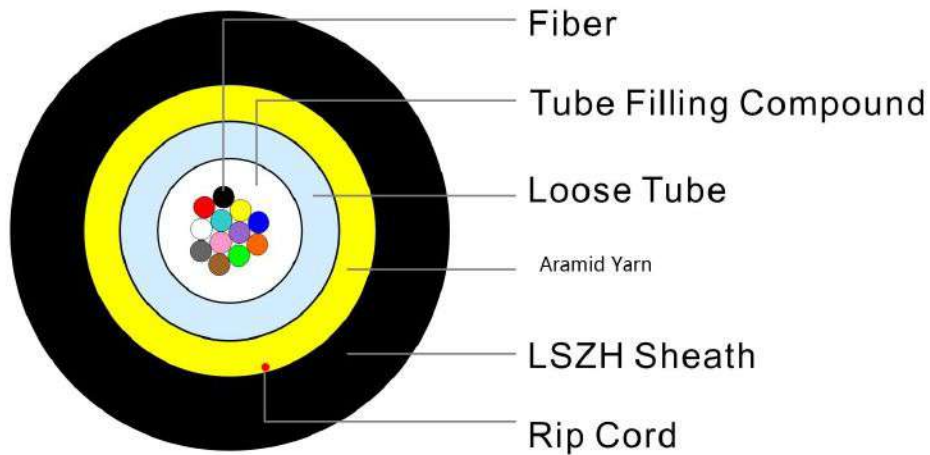
Non-Armored Optic Cable

[GYFXTZY]

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1. CABLE CONSTRUCTION

1.1. CROSS SECTIONAL DIAGRAM



1.2. STRUCTURE SPECIFICATION

Items		DESCRIPTION
Fiber count		6F
The Color Code of The fibers		Blue,Orange,Green, Brown, Gray, White/natural
Loose Tube	OD(mm)	2.2±0.1
	Material	PBT
Water Block Material:		Water blocking Compound
Strength yarn		Aramid yarn
Sheath	Thickness	Non. 1.0mm
	Material	LSZH
OD of cable (mm)		6.5±0.2
Net weight (kg/km)		42±2

2. FIBER IDENTIFICATION

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

3.OPTICAL FIBER

3.1 Single Mode Fiber

LTEMS	UNITS	SPECIFICATION	
Fiber type		G652D	G657A
Attenuation	dB/km	$1310\text{nm} \leq 0.36$ $1550\text{nm} \leq 0.22$	
Chromatic Dispersion	ps/nm.km	$1310\text{nm} \leq 3.5$ $1550\text{nm} \leq 18$ $1625\text{nm} \leq 22$	
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) $\leq 0.1 @ 1625\text{nm}$	(10mm radius, 1ring) $\leq$ 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 $\pm$ 1	125 $\pm$ 1
Cladding Non-circularity	%	≤ 0.8	≤ 0.8
Coating Diameter	μm	245 $\pm$ 5	245 $\pm$ 5
Proof Test	Gpa	≥ 0.69	≥ 0.69

4.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: 300N -. Short-tensile load: 600N -. Cable length: $\geq 50\text{m}$	-. Attenuation increment@1550nm: $\leq 0.1\text{dB}$ -. No jacket cracking and fiber breakage

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2	Crush Resistance Test	#Test method:IEC 60794-1-E3 -.Long load: 300 N/100mm -.Short load: 1000 N/100mm Load time: 1 minutes	-. Attenuation increment@1550nm:≤0.1dB -. No jacket cracking and fiber breakage
3	Impact Resistance Test	#Test method:IEC 60794-1-E4 -.Impact height: 1 m -.Impact weigh: 450 g -.Impact point: ≥5 -.Impact frequency: ≥3/point	-. Attenuation increment@1550nm:≤0.1dB -. No jacket cracking and fiber breakage
4	Repeated Bending	#Test method:IEC 60794-1-E6 -.Mandrel diameter: 20D (D = cable diameter) -.Subject weight: 15kg -.Bending frequency: 30 times -.Bending speed: 2s/time	-. Attenuation increment@1550nm:≤0.1dB -. No jacket cracking and fiber breakage
5	Torsion Test	#Test method:IEC 60794-1-E7 -.Length: 1m -.Subject weight:25kg -.Angle: ±180 degree -.Frequency: ≥10/point	-. Attenuation increment@1550nm:≤0.1dB -. No jacket cracking and fiber breakage
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℃、-20℃、+70℃、+20℃ -.Testing Time: 12 hours/step -.Cycle index: 2	-. Attenuation increment@1550nm:≤0.1dB -. No jacket cracking and fiber breakage
8	Drop Performance	#Test method:IEC 60794-1-E14 -.Testing length: 30cm -.Temperature range: 70±2℃ -.Testing Time: 24 hours	-. No filling compound drop out
9	Temperature	Operating:-40℃~+60℃ Store/Transport :-50℃~+70℃ Installation -20℃~+60℃	

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5.FIBER OPTIC CABLE BENDING RADIUS

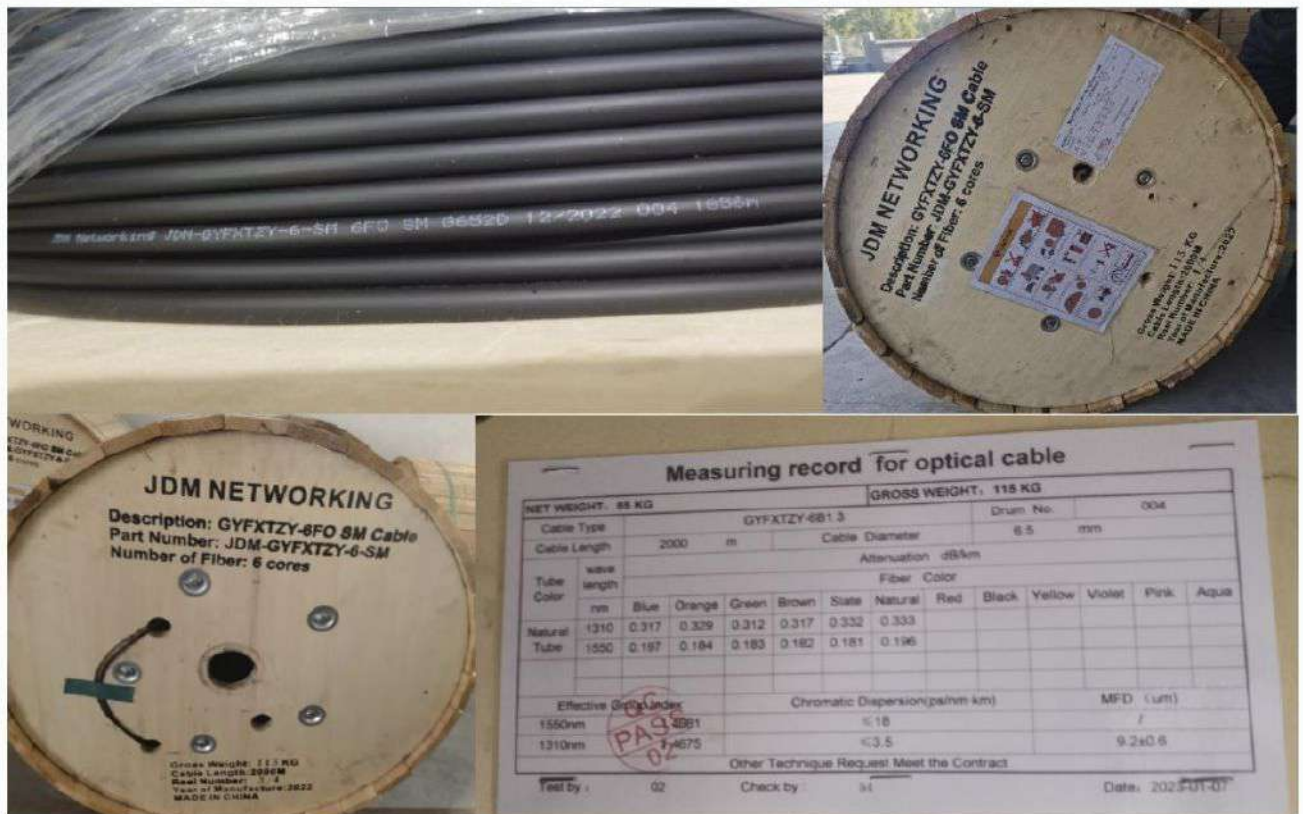
Static bending: ≥ 10 times than cable out diameter

Dynamic bending: ≥ 20 times than cable out diameter.

6.PACKAGE AND MARK

6.1 PACKAGE

Not allowed two length units of cable in one drum, two ends should be sealed,. Two ends should be packed inside drum, reserve length of cable not less than 3 meters.



6.2 MARK

Cable shall be permanently marked in English at regular intervals with the following information

- Name of manufacturer
- Type of cable
- Fiber category

6.3 TEST REPORT

Test report and certification supplied.