

Specification

FOR Multitube Dielectric Cable FTTx Easy Strip [GJBFTH]

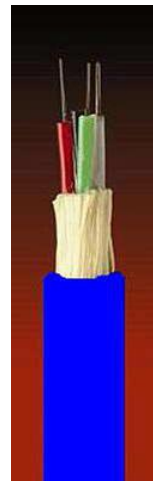
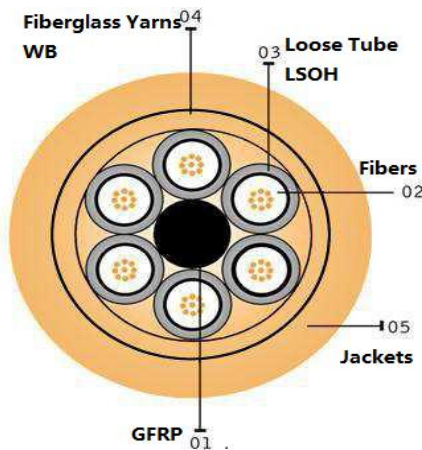
Canal autorizado:

Unicor s.a.

www.unicorsa.com.ar

Spec No.: LA-MY180706-GJBFTH.

1. CABLE CONSTRUCTION



1.1. STRUCTURE SPECIFICATION

Fiber count		24FO	48FO	96FO	144FO
Loose Tube	OD(mm):	2.0 \pm 0.1			
	Material:	LSZH			
Fibers per Tube		12	12	12	12
Total Tubes		4	4	8	12
Active Tubes		2	4	8	12
Strength Number		Reinforced Fiberglass Yarns WB (Waterblocking)			
sheath thickness (mm)		1.0 \pm 0.1	1.2 \pm 0.1	1.2 \pm 0.1	1.2 \pm 0.1
Sheath material		Termoplastic LSZH			
OD of cable(mm)		8.0 \pm 0.2	8.0 \pm 0.2	10.0 \pm 0.5	12.0 \pm 0.5
Net weight (kg/km)		62	63	98	144
Max.Tensile Loading (N)		1000	1000	1500	1500

1.2. FIBER AND LOOSE BUFFER TUBE IDENTIFICATION

NO.	1	2	3	4	5	6	7	8	9	10	11	12
Tube Color	Blue	Orange	Green	Brown	Slate	White	Red	Black	Yellow	Violet	Pink	Aqua
NO.	1	2	3	4	5	6	7	8	9	10	11	12
Fiber Color	Blue	Orange	Green	Brown	Slate	White	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		G652D	G657A
Attenuation	dB/km	1310nm ≤ 0.33 1383nm ≤ 0.30 1490nm ≤ 0.23 1550nm ≤ 0.20 1625nm ≤ 0.21	
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	dB	(30mm radius, 100ring) ≤ 0.1 @ 1625nm	(15mm radius, 10ring) ≤ 0.05 @ 1550nm
Mode Field Diameter	μm	9.2 ± 0.4 at 1310nm	8.8 ± 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

LTEMS	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	2.8	2.5		
	1300nm	dB/km	1.0	1.0	0.7		
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: 0.5 times the short-term pulling force -. Short-tensile load: reference to clause 1.1 -. Cable length: ≥50m	-. Attenuation increment@1550nm:≤0.1dB -. 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	-. Attenuation increment@1550nm:≤0.1dB -. No jacket cracking and fiber breakage
3	Impact Resistance Test	#Test method:IEC 60794-1-E4 -.Impact height: 1m -.Impact weigh: 450g -.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	-. Attenuation increment@1550nm:≤0.1dB -. No jacket cracking and fiber breakage

		-Bending frequency: 30 times -Bending speed: 2s/time	
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℃、-40℃、+70℃、+20℃ -Testing Time: 24 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℃~+70℃ Store/Transport :-40℃~+70℃ Installation: -20℃~+60℃	

4. FIBER OPTIC CABLE BENDING RADIUS

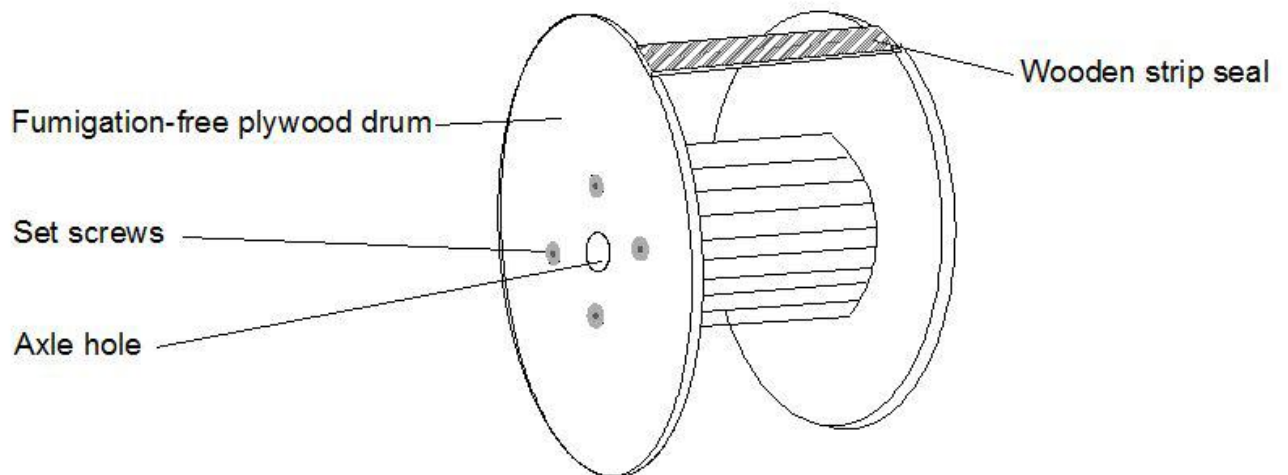
Static bending: ≥10 times than cable out diameter

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 3 meters.



5.2 MARK

Cable Mark: Brand、 Cable type、 Fiber type and counts、 Year of manufacture、 Length marking. Customized markings are available upon request.

6. TEST REPORT

Test report and certification supplied.