

No.	REVISION	DATE
1	V0	31/07/2018
2		
3		

Specification

FOR

All Dielectric Self-Supporting Double Jackets Optical Fiber Cable

[ADSS-200M Span]

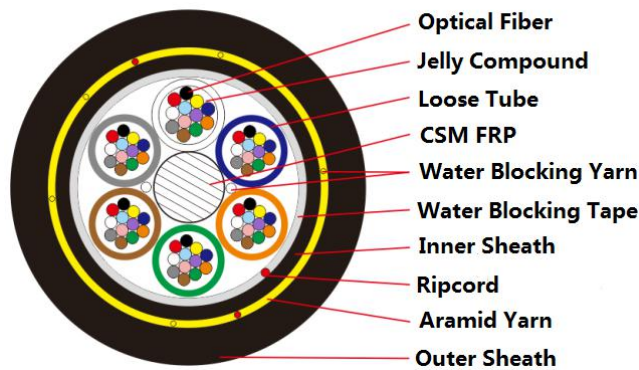
Canal autorizado:

Unicor s.a.

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1. CABLE CONSTRUCTION

1.1 CROSS SECTIONAL DIAGRAM



1.2 TECHNICAL SPECIFICATION

Fiber count		24FO	48FO	72FO	144FO
Loose Tube	OD(mm):	2.0 ^{±0.1}	2.0 ^{±0.1}	2.0 ^{±0.1}	2.4 ^{±0.1}
	Material:	PBT	PBT	PBT	PBT
Max fiber count/tube		6	12	12	12
Tube No. / Filler No.		4/2	4/2	6/0	12/0
FRP/Coating (mm)		2.3	2.3	2.3	3.0/7.0
Water Blocking Material		Water-Blocking Yarn / Water-Blocking Tape			
Strength Member		Aramid Yarn			
Sheath	Inner (mm):	1.0	1.0	1.0	1.0
	Outer(mm):	1.65	1.65	1.65	1.65
	Material:	Black PE			
Nominal Weights (kgs)		117	117	117	190
OD of cable (mm)		12.5 ^{±0.3}	12.5 ^{±0.3}	12.5 ^{±0.3}	17.5 ^{±0.3}
MAT (N)		4000N	4000N	4000N	4000N
RCD Initial Sag		Up To 200m, Sag 1.0%			
Worst Load Condition		Wind Velocity : 30m/s, Ice Thickness : 0mm			

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	Natural	Red	Black	Yellow	Violet	Pink	Aqua

3. OPTICAL FIBER

3.1 Single Mode Fiber

LTE MS	UNITS	SPECIFICATION
Fiber type		ITU – T G . 652 D
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 (60mm x100turns)	dB	(30mm radius,100ring) ≤ 0.1 @ 1625nm
Mode Field Diameter	μm	9.2 ± 0.4 at 1310nm
Core-Clad Concentricity	μm	≤ 0.5
Cladding Diameter	μm	125±1
Cladding Non-circularity	%	≤ 0.8
Coating Diameter	μm	245±5
Proof Test	Gpa	≥ 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: 0.5MAT -. Short-tensile load: As MAT -. Cable length: ≥50m -. Testing Time : 1h	-. Attenuation increment@1550nm:≤0.1dB -. No jacket cracking and fiber breakage -Fiber Strain ≤0.33%
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:TIS2166-2548 -.Impact height: 1m -.Impact weigh: 350g -.Impact point: ≥3	-. 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: 25kg -.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°C、-40°C、+70°C、+20°C -.Testing Time: 24 hours/step -.Cycle index: 1	-. Attenuation increment@1550nm:≤0.1dB -. No jacket cracking and fiber breakage
8	Drop Performance	#Test method: IEC 60794-1-E14 -.Testing length: 30cm	-. No filling compound drop out

		- Temperature range: 70±2°C - Testing Time: 24 hours	
9	Temperature	Operating: -40°C~+60°C Store/Transport : -50°C~+70°C Installation -20°C~+60°C	

5. FIBER OPTIC CABLE BENDING RADIUS

Static bending: ≥10 times than cable out diameter

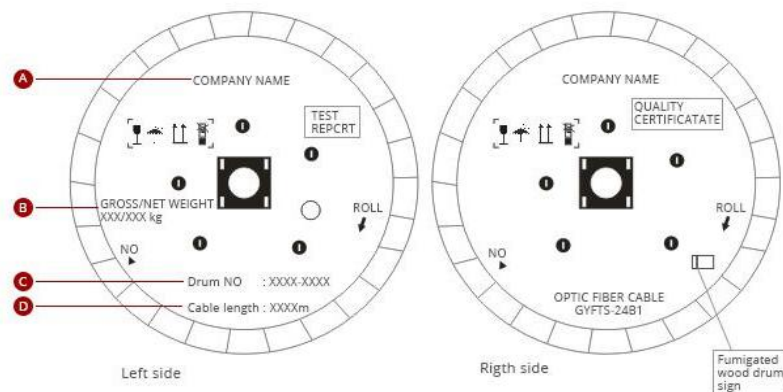
Dynamic bending: ≥20times than cable out diameter.

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.

Mark



Usually we only attach Test Report on the out package of the cable, but we could also mark as your requirements, such as:

1. Company Name
2. Cross / Net weight
3. Drum No: XX
4. Cable Length : XX

6.2 Cable MARK

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

7. TEST REPORT

Test report and certification supplied.