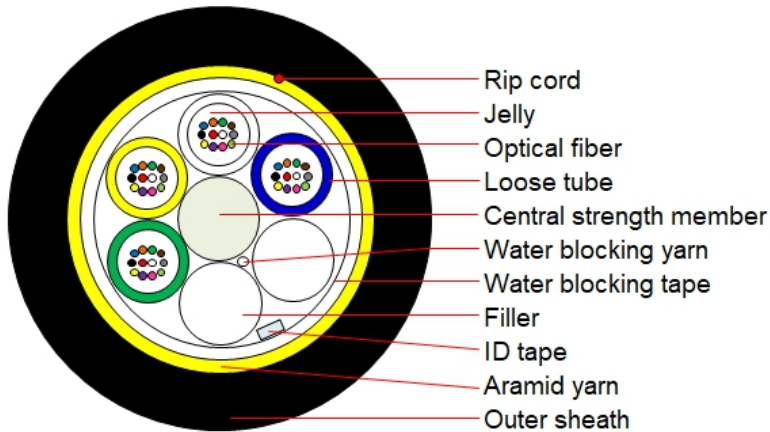


# ADSS-Single Jacket

# CFOA-SM-AS-S-KP

## 1. Cable cross-section



## 2. Cable Specification

### 2.1 Introduction

Loose tube construction, tubes jelly filled, tubes laid up around non-metallic central strength member, polyester yarns used to bind the cable core, dry core, ID tape, water blocking tape, aramid yarns reinforced, a ripcord and then PE outer jacket.

### 2.2 Fiber color code

Fiber color in each tube starts from No. 1 Green.

1	2	3	4	5	6	7	8	9	10	11	12
Green	Yellow	White	Blue	Red	Purple	Brown	Pink	Black	Gray	Orange	Aqua

### 2.3 Color codes for loose tube.

1	2	3	4	5	6	7	8	9	10	11	12
Green	Yellow	White	Blue	Red	Purple	Brown	Pink	Black	Gray	Orange	Aqua

### 2.4 Cable structure and parameter

#### Span 80m

SN	Item	Unit	Value	
1	No. of fibers	count	18~36	48~72
2	Nominal cable diameter	mm	9.7	10.7
3	Nominal cable weight	kg/km	67	84
4	Short term tension	N	1.5×cable weight	
5	Short term crush	N/100mm	1×cable weight, Min1000	

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## Span 200m

SN	Item	Unit	Value
1	No. of fibers	count	2~12
2	Nominal cable diameter	mm	9.9
3	Nominal cable weight	kg/km	68
4	Short term tension	N	3×cable weight
5	Short term crush	N/100mm	1×cable weight, Min1000

## 3. Characteristic of Optical Cable

### 3.1 Min. bending radius for installation

Static: 10 x cable diameter

Dynamic: 20 x cable diameter

### 3.2 Application temperature range

Operation: -20°C ~ +65°C

Installation: -20°C ~ +65°C

Storage/transportation: -20°C ~ +65°C

### 3.3 Main mechanical & environmental performance test

Item	Test Method	Acceptance Condition
Thermal Cycle NBR 13510	- Temperature: -20°C~+65°C - Time of each step: 48h - Times: 4	- Loss change ≤ 0.1dB@1310±20nm - Loss change ≤ 0.1dB@1550±20nm
Tensile Strength NBR 13512	- Load: short term tension - Length of cable: 25m×6	- Loss change ≤ 0.1dB@1310±20nm - Loss change ≤ 0.1dB@1550±20nm - Fiber strain ≤ 0.05%, no residual.
Crush Test NBR 13507	- Load: short term crush - Load increase rate: 5mm/min - Load time: 2min	- Loss change ≤ 0.1dB@1310±20nm - Loss change ≤ 0.1dB@1550±20nm - No sheath damage.
Torsion NBR 13513	- Length:0.2m - Angle:±90° - Times:10	- Loss change ≤ 0.1dB@1310±20nm - Loss change ≤ 0.1dB@1550±20nm - No sheath damage.
Curvature NBR 13508	- Curve radius:12 x OD - Circle:5	- Loss change ≤ 0.1dB@1310±20nm - Loss change ≤ 0.1dB@1550±20nm - No sheath damage.
Bending NBR 13518	- Curve radius:12 x OD - Times:25 - Load:2kg - Angle:±90°	- Loss change ≤ 0.1dB@1310±20nm - Loss change ≤ 0.1dB@1550±20nm
Humidity Penetration NBR 9136	- Height of water: 1m - Sample length: 1m	- No water leak from the cable core of the opposite end.

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Item	Test Method	Acceptance Condition
	- Time: 1h	
Impact NBR 13509	- Height:0.15m - Times:25 - Weight: according to the standard	- No fiber break and no sheath damage.
Filling Component Leakage NBR 9149	- Length:300mm - Sample:3 - Temperature: 65±2°C - Time:24h	- No outflow or dripping.
Oxidative Induction Time NBR 13977	- Pretreatment temperature: 85°C - Pretreatment time: 168h - Test temperature: 190±0.5°C	- Oxidative induction time≥20min.
Alternated Flexion NBR 13514	- Mandrel:570mm - Times: 50	- Loss change ≤ 0.1dB@1310±20nm - Loss change ≤ 0.1dB@1550±20nm

## 4. Characteristic of Optical Fiber

Item	Contents	Value
G.652D Optical characteristics		
Attenuation	@1310nm	≤0.35dB/km
	@1550nm	≤0.22dB/km
Dispersion	@1288nm~1339nm	≤3.5ps/(nm·km)
	@1550nm	≤18ps/(nm·km)
Zero-Dispersion wavelength		1300nm~1324nm
Zero-Dispersion slope		≤0.092ps/(nm <sup>2</sup> ·km)
Mode field diameter (MFD)	@1310nm	9.2±0.4μm
	@1550nm	10.4±0.5μm
Cable cutoff wavelength λ <sub>cc</sub> (nm)		≤1260nm
Micro bending Attenuation	@1550nm (100turns;Φ60mm)	≤0.05dB
Link polarization dispersion (PMD <sub>Q</sub> )		≤0.1ps/km <sup>1/2</sup>

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