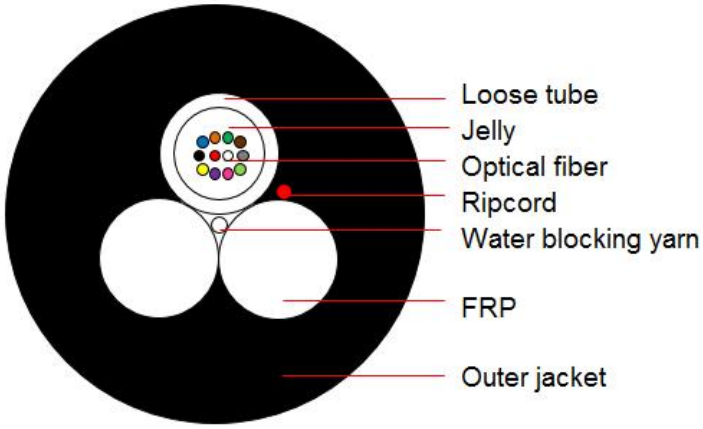
ADSS(0+3)

CFOA-SM-ASU-S NR

1. Cable cross-section (not to scale and only for reference)



2. Cable description

Single loose tube construction, jelly compound filled, water blocking yarn, a ripcord and then PE outer sheath with two non-metallic strength members combined.

3. Fiber & tube color

Fiber color code starts from No.1 Green:

No.	1	2	3	4	5	6
Color	Green	Yellow	White	Blue	Red	Purple
No.	7	8	9	10	11	12
Color	Brown	Pink	Black	Gray	Orange	Aqua

Loose tubes color code.

No.	1
Color	Natural

4. Structure parameter

Span 80m

Item	Contents	Unit	Value
Fiber count	Number	/	6~12
Loose tube	Number	/	1
Cable diameter	±0.5	mm	6.0
Cable weight	±10%	kg/km	32
Max. span	/	m	80

Span 120m

Item	Contents	Unit	Value
Fiber count	Number	/	6~12
Loose tube	Number	/	1
Cable diameter	±0.5	mm	7.0
Cable weight	±10%	kg/km	44
Max. span	/	m	120

Note: sizes and values without tolerances are nominal values.

5. Mechanical & Environmental Performance

Item	Contents	Value
Max. tensile load	Short term	1.5G for span 80m 2G for span 120m
Max. crush resistance	Short term	1G but min. 1000 N/100mm
Min. bending radius	Installation	20 x cable diameter
	Operation	10 x cable diameter
Temperature range	Operation	-20℃ ~ +65℃
	Installation	-10℃ ~ +60℃
	Storage/transportation	-20℃ ~ +65℃

Note: G is the weight of the cable per km.

6. Main mechanical & environmental performance test

Item	Test Method	Acceptance Condition
Thermal Cycle NBR 13510	- Temperature: -20℃~+65℃ - 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%.
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.

Item	Test Method	Acceptance Condition
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℃ - Time:24h	- No outflow or dripping.
Alternated Flexion NBR 13514	- Mandrel:570mm - Times: 50	- Loss change ≤ 0.1dB@1310±20nm. - Loss change ≤ 0.1dB@1550±20nm.

7. OPTICAL FIBER

Item	Contents	Value
G.652D Optical characteristics		
Attenuation	@1310nm	≤0.36dB/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^2·km)
Mode field diameter (MFD)	@1310nm	9.2±0.4μm
	@1550nm	10.4±0.5μm
Cable cutoff wavelength λcc(nm)		≤1260nm
Macro bending attenuation	@1550nm (100turns;Φ60mm)	≤0.05dB
Link polarization dispersion (PMD_Q)		≤0.1ps/km$^{1/2}$