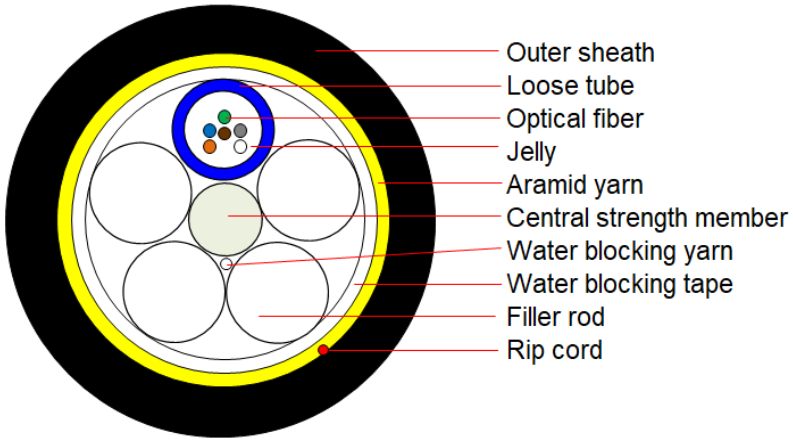
ADSS-Semi Dry-Single Sheath

1. Cable cross-section



Not to scale, color is only for showing, may be not exact same as real product color

2. Cable description

Loose tube construction, tubes jelly filled, elements (tubes and filler rods when necessary) laid up around non-metallic central strength member, polyester yarns used to bind the cable core, water blocking tape wrapped of the cable core, aramid yarns reinforced, 1 ripcord, then PE outer sheath.

3. Fiber & tube color

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

4. Structure parameter

Item	Contents	Unit	Value		
Fiber count	Number	/	6	12/24	48
Cable structure	/	/	1+5		
Fiber No. per tube	Number	/	6	6	12
Loose tube	Number	/	1	2/4	4
Central strength member	Material	/	FRP		
Outer sheath thickness	Nominal	mm	Nominal 1.6		
Cable diameter	±5%	mm	9.9	9.9	10.3
Cable weight	±10%	kg/km	64	68	76
Max. tensile load	MAT	N	1500	1500	2000
Max. span	/	m	100		

Item	Contents	Unit	Value
Weather condition	/	/	No ice and max wind 25m/s
Installation Sag	/	%	≥1.2

Note: sheath thickness not consider ripcord portion, sizes and values without tolerances are nominal values

5. Mechanical & Environmental Performance

Item	Contents	Value
Max. crush resistance	Short term	1000 N/100mm
Min. bending radius	Installation	20 x cable diameter
	Operation	10 x cable diameter
Temperature range	Operation	-30℃ ~ +70℃
	Installation	-10℃ ~ +60℃
	Storage/transportation	-30℃ ~ +70℃

6. Main mechanical performance test

Item	Test Method	Acceptance Condition
Tensile Strength IEC 60794-1-2-E1	- Load: MAT - Length of cable: ≥ 50m - Load time: 1min	- Fiber strain ≤ 0.33%. - Loss change ≤ 0.1dB@1550nm after test. - No fiber break and no sheath damage.
Crush Test IEC 60794-1-2-E3	- Load: Short term crush - Load time: 1min	- Loss change ≤ 0.1dB@1550nm after test. - No fiber break and no sheath damage.
Impact Test IEC 60794-1-2-E4	- Radius: 300 mm - Points of impact: 3 - Times of per point: 1 - Impact energy: 10J	- Loss change ≤ 0.1dB@1550nm after test. - No fiber break and no sheath damage.
Repeated Bending IEC 60794-1-2-E6	- Bending radius: 20 x OD - No. of cycles: 25	- Loss change ≤ 0.1dB@1550nm after test. - No fiber break and no sheath damage.
Torsion IEC 60794-1-2-E7	- Length: 1m - Twist angle: ±90° - No. of cycles: 10	- Loss change ≤ 0.1dB@1550nm after test. - No fiber break and no sheath damage.
Cable bend IEC 60794-1-2-E11	- Diameter of mandrel:20 x OD - No. of turns:4 - No. of cycles:3	- Loss change ≤ 0.1dB@1550nm after test. - No fiber break and no sheath damage.
Compound flow IEC 60794-1-2-E14	- Length: 30cm - Temperature:70℃±2℃ - Period:24h	- No outflow or dripping.
Water Penetration IEC 60794-1-2-F5	- Height of water: 1m - Sample length: 3m - Time: 24h	- No water leak from the cable core of the opposite end
Temperature Cycling IEC 60794-1-2-F1	- Temperature: -30℃~+70℃ - Time of each step: 12h - No. of cycles: 2	- Loss change ≤ 0.1dB/km@1550nm. - No fiber break and no sheath damage.

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
Micro bending Attenuation	@1550nm (100turns;Φ60mm)	≤0.05dB
Link polarization dispersion (PMD_Q)		≤0.1ps/$km^{1/2}$