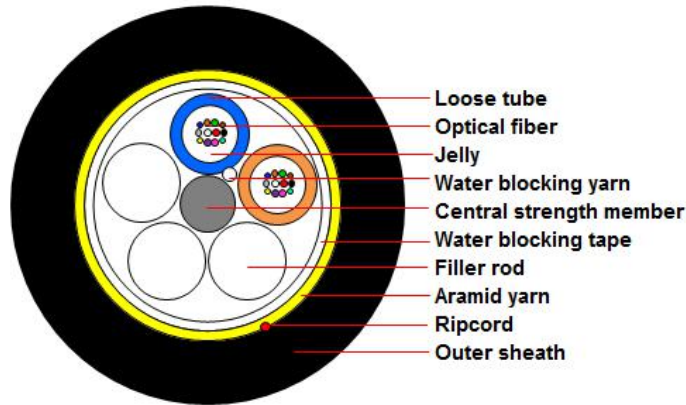


# ADSS-100M (Semi Dry, Single Sheath)

## 1. Cable cross-section



## 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, a ripcord and 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	/	12	24	48
Cable structure	/	/	1+5		
Fiber No. per tube	Number	/	12		
Loose tube	Number	/	1	2	4
Central strength member	Material	/	FRP		
Outer sheath thickness	Nominal	mm	1.6		
Cable diameter	±5%	mm	10.7		
Cable weight	±10%	kg/km	72	75	78
Weather condition	/	/	NESC Light		
Span	/	m	100		
Installation Sag	/	%	≥1.0		



## 5. Mechanical & Environmental Performance

Item	Contents	Value
Max. tensile load	MAT	2500 N
Max. crush resistance	Short term	1500 N/100mm
Min. bending radius	Installation	20 x cable diameter
	Operation	10 x cable diameter
Temperature range	Operation	-40°C ~ +70°C
	Installation	-10°C ~ +60°C
	Storage/transportation	-40°C ~ +70°C

## 6. Main mechanical performance test

Item	Test Method	Acceptance Condition
Tensile Strength IEC 60794-1-2-E1	- Load: Short term tension - Length of cable: ≥ 50m - Load time: 1min	- Fiber strain ≤ 0.6% - 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°C ± 2°C - 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: -20°C ~ +70°C - Time of each step: 12h - No. of cycles: 2	- Loss change ≤ 0.1dB/km@1550nm. - No fiber break and no sheath damage.

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## 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 <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>0</sub> )		≤0.1ps/km <sup>1/2</sup>

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