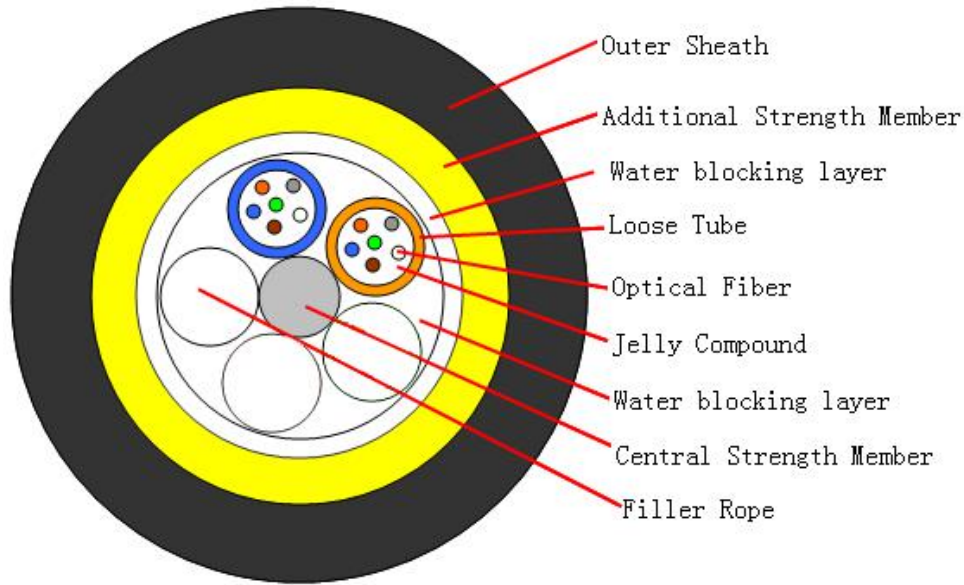


**All-dielectric, self-supporting, Span 100m, Single sheath, optical fiber cable(ADSS)**

**Technical data**

No. of cable		4	8	12
Fiber Model		G.652D		
Design(StrengthMember+Tube&Filler)		1+5		
Central Strength Member	Material	FRP		
	Diameter (±0.05) mm	1.5		
Loose Tube	Material	PBT		
	Diameter (±0.06) mm	1.8		
	Thickness (±0.03) mm	0.30		
	The Max.Core NO./Tube	4	4	6
Water Blocking layer (Material)		Water Blocking Yarn & Water Blocking Tape		
Additional Strength Member (Material)		Aramid yarn		
Outer Sheath	Material	MDPE		
	Thickness (±0.1) mm	1.7		
Cable Diameter (±0.2) mm		9.2		
Cable Weight (±10.0) kg/km		66		
Span		100m		
Min. bending radius	Without Tension	10.0×Cable-φ		
	Under Maximum Tension	20.0×Cable-φ		
Temperature range (°C)	Installation	-20~+60		
	Transport&Storage	-40~+70		
	Operation	-40~+70		

### Fibre Colours

No.	1	2	3	4	5	6
Color	Blue	Orange	Green	Brown	Gray	White

### Loose Tube Colours

No.	1	2
Color	Blue	Orange

### The properties of single mode optical fiber (ITU-T Rec. G.652.D)

Item	Specification
Fiber type	Single mode
Fiber material	Doped silica
Attenuation coefficient	
@ 1310 nm	≤ 0.35 dB/km
@ 1383 nm	≤ 0.32 dB/km
@ 1550 nm	≤ 0.21 dB/km
@ 1625 nm	≤ 0.24 dB/km
Point discontinuity	≤ 0.05 dB
Cable cut-off wavelength	≤ 1260 nm
Zero-dispersion wavelength	1300 ~ 1324 nm
Zero-dispersion slope	≤ 0.092 ps/(nm <sup>2</sup> .km)
PMD <sub>Q</sub> (Quadrature average*)	≤ 0.2 ps/km <sup>1/2</sup>
Mode field diameter @ 1310 nm	9.2±0.4 μm
Core / Clad concentricity error	≤ 0.5 μm
Cladding diameter	125.0 ± 0.7 μm
Cladding non-circularity	≤ 1.0%
Primary coating diameter	245 ± 10 μm
Proof test level	100 kpsi (=0.69 Gpa), 1%
Temperature dependence 0oC~ +70oC @ 1310 & 1550nm	≤ 0.1 dB/km

### Main mechanical & environmental performance test

Item	Test Method	Acceptance Condition
Tensile Strength IEC 794-1-2-E1	- Load: Short term tension - Length of cable: about 50m	- Fiber strain ≤ 0.33% - Loss change ≤ 0.1 dB @1550 nm - No fiber break and no sheath damage.

Crush Test IEC 60794-1-2-E3	- Load: Short term crush - Load time: 1min	- Loss change $\leq 0.05\text{dB}@1550\text{nm}$ - No fiber break and no sheath damage.
Impact Test IEC 60794-1-2-E4	- Points of impact: 3 - Times of per point: 1 - Impact energy: 5J	- Loss change $\leq 0.1\text{dB}@1550\text{nm}$ - No fiber break and no sheath damage.
Temperature Cycling Test YD/T901-2001-4.4.4 .1	- Temperature step: +20°C→-40°C→+70°C →+20°C - Time per each step: 12 hrs - Number of cycle: 2	- Loss change $\leq 0.05 \text{ dB/km}@1550 \text{ nm}$ - No fiber break and no sheath damage.

### Sheath marking

The optical fiber drop cable shall have sequentially numbered length marking at intervals of approximately 1 meter. The starting number of ordering length for any coil shall begin with zero meter. The accuracy of the measurement of length marking shall be held within the limits of  $\pm 1\%$ .

- A) Transnet Freight Rail or TFR
- B) Name of manufacturer
- C) Year of manufacture
- D) Quantity of fibre
- E) Type of fibre
- F) Sequential length marking
- G) Unique cable number