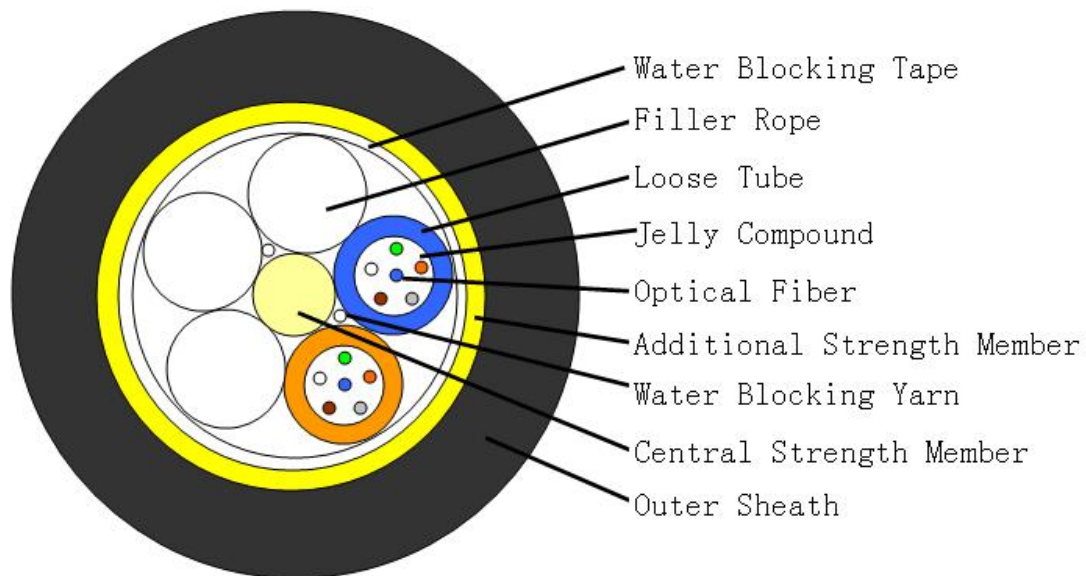


All-dielectric Single Sheath Fiber Optical Cable Span 150m (ADSS) HDPE



Technical data

No. of cable		/	6	12	24
Design(StrengthMember+Tube&Filler)		/	1+5		
Fiber type		/	G.652D		
Central Strength Member	Material	mm	FRP		
	Diameter(± 0.05)		1.5		
Loose Tube	Material	mm	PBT		
	Diameter(± 0.05)		1.8		
	Thickness(± 0.03)		0.30		
	MAX Fibers./per tube		6		
Water Blocking Layer(Material)		/	Water Blocking Yarn&Water Blocking tape		
Additional Strength Member(Material)		/	Aramid Yarn		
Outer Sheath	Material	mm	HDPE		
	Thickness		1.7		
	colour		Black.		
Cable Diameter(± 0.2)		mm	9.4		
Cable Standard Weight(± 5)		kg/km	68		
Span		M	150		
Attenuation coefficient	1310nm	dB/km	≤ 0.35		
	1550nm		≤ 0.21		
Span		m	150		
Rated Tensile Strength		kN	9.5		
Maximum Allowable Tension		kN	3.8		

Crush Resistance	Short Term	N/100	2200
	Long Term	mm	1100
Min. bending radius	Without Tension	mm	10.0×Cable-φ
	Under Maximum Tension		20.0×Cable-φ
Temperature range (°C)	Installation	°C	-20~+60
	Transport&Storage		-40~+70
	Operation		-40~+70

Fibre Colours

No.	1	2	3	4
Color	Blue	Orange	Green	Brown

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	≤ 0.22 dB/km
@ 1625 nm	≤ 0.23 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 ² .km)
Chromatic dispersion	
@ 1310nm	≤3.0 ps/(nm. km)
@ 1271 ~ 1360 nm	≤5.3 ps/(nm. km)
@ 1550 nm	≤18 ps/(nm. km)
@ 1625 nm	≤22 ps/(nm. km)
PMD _Q (Quadrature average*)	≤0.2 ps/km ^{1/2}
Mode field concentricity error	Less than 1 um
Core / Clad concentricity error	≤ 0.5um

Cladding diameter	124.3~ 125.7um
Cladding non-circularity	≤0.7%
Primary coating diameter	245 ± 10 um
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 ≤ 0.05dB@1550nm - 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 ≤ 0.1dB@1550nm - 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 ≤ 0.05 dB/km@1550 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 ±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