



Double jacket dielectric fiber optic cable (ADSS) 24 core 600m span

CODE:

1. Cable Description

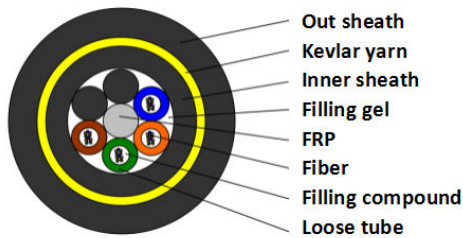
ADSS cable is loose tube stranded. Fibers, are positioned into a loose tube made of high modulus plastics. The tubes are filled with a water-resistant filling compound. The tubes (and fillers) are stranded around a FRP (Fiber Reinforced Plastic) as a non-metallic central strength member into a compact and circular cable core. After the cable core is filled with filling compound, it is covered with thin PE (polyethylene) inner sheath. After stranded layer of aramid yarns are applied over the inner sheath as strength member, the cable is completed with PE or AT (anti-tracking) outer sheath.

2. Application

- It can be installed without shutting off the power.
- Light weight and small diameter reducing the load caused by ice and wind and the load on towers and backprops.
- Good performance of tensile strength and temperature.
- The design life span is 30 years.

3. Characteristics

- FRP central strength member
- Tube filling gel
- Loose tube stranded
- PE /AT sheath outdoor cable
- Kevlar make cable more tensile



4. Cable construction details

Number of fiber	24core	
Moisture Barrier	Water blocking system	
Loose tube and Filler elements	material	PBT
	diameter	$\Phi 2.2\text{mm} \pm 0.2\text{mm}$
Central strength member	material	FRP
	diameter	$2.0\text{mm} \pm 0.2\text{mm}$
Inner sheath	material	PE
	Thickness	$1.0\text{mm} \pm 0.2\text{mm}$
	OD	8.0mm
Outer sheath	material	PE
	Thickness	$2.2\text{mm} \pm 0.2\text{mm}$
Cable OD	diameter	$12.5\text{mm} \pm 0.5\text{mm}$

5. Fiber color

Number of fiber per tube 12 cores	1	2	3	4	5	6
	Blue	Orange	Green	Brown	Grey	White
	7	8	9	10	11	12
	Red	Black	Yellow	Violet	Pink	Aqua

Tube color	1	2	3	4		
	Blue	Orange	Green	Brown		

6.Cable Mechanical characteristic

core	Cable diameter	weight
24 core	12.5±0.5mm	153±5kg/km
Min Bending Radius(mm)	Long term	10D
Min BendingRadius(mm)	Short term	20D
Span	600M	
Kevlar	dupont yarn 3160D 48pcs	
Min allowable Tensile Strength(N)	Long term	11KN
Min allowable Tensile Strength(N)	Short term	11.5KN
Min. Allowable Crush Load (N/100mm)	Long term	300
Min. Allowable Crush Load (N/100mm)	short term	1000
Operationtemperature (°C)	-40+70	
Installationtemperature (°C)	-15+60	
Storage temprature (°C)	-40+70	

7.Fiber characteristic

Fiber style	Unit	SM G652	SM G652D	MM 50/125	MM 62.5/125	MM OM3-300
condition	nm	1310/1550	1310/1550	850/1300	850/1300	850/1300
attenuation	dB/km	≤	≤	≤	≤3.0/1.0	≤3.0/1.0
		0.36/0.23	0.34/0.22	3.0/1.0	----	----
Dispersion	1550nm	Ps/(nm*km)	----	≤18	----	Dispersion
	1625nm	Ps/(nm*km)	----	≤22	----	
Bandwith	850nm	MHZ.KM	----	≥400	≥160	Bandwith
	1300nm	MHZ.KM	----	≥800	≥500	
Zero dispersion wavelength	nm	1300-1324	≥1302, ≤1322	----	----	≥1295, ≤1320
Zero dispersion slope	nm	≤0.092	≤0.091	----	----	----
PMD Maximum Individual Fibr		≤0.2	≤0.2	----	----	≤0.11
PMD Design Link Value	Ps(nm ² *k m)	≤0.12	≤0.08	----	----	----
Fibre cutoff wavelength λc	nm	≥1180, ≤1330	≥1180, ≤1330	----	----	----
Cable sutoffwavelength λcc	nm	≤1260	≤1260	----	----	----
MFD	1310nm	um	9.2+/-0.4	9.2+/-0.4	----	----
	1550nm	um	10.4+/-0.8	10.4+/-0.8	----	----
Numerical Aperture(NA)		----	----	0.200+/-0.015	0.275+/-0.015	0.200+/-0.015
Step(mean of bidirectional measurement)	dB	≤0.05	≤0.05	≤0.10	≤0.10	≤0.10
Irregularities over fiber length and point	dB	≤0.05	≤0.05	≤0.10	≤0.10	≤0.10

Dicontinuity						
Difference backscatter coefficient	dB/km	≤0.05	≤0.03	≤0.08	≤0.10	≤0.08
Attenuation uniformity	dB/km	≤0.01	≤0.01			
Core diameter	um			50+/-1.0	62.5+/-2.5	50+/-1.0
Cladding diameter	um	125.0+/-0.1	125.0+/-0.1	125.0+/-0.1	125.0+/-0.1	125.0+/-0.1
Cladding non-circularity	%	≤1.0	≤1.0	≤1.0	≤1.0	≤1.0
Coating diameter	um	242+/-7	242+/-7	242+/-7	242+/-7	242+/-7
Coating/chaffinch concentricity error	um	≤12.0	≤12.0	≤12.0	≤12.0	≤12.0
Coating non circularity	%	≤6.0	≤6.0	≤6.0	≤6.0	≤6.0
Core/cladding concentricity error	um	≤0.6	≤0.6	≤1.5	≤1.5	≤1.5
Curl(radius)	um	≤4	≤4	----	----	----

8.Package

1.Packing material: Wooden drum
2.Packing length: standard length of cable shall be 2 km. Other cable length is also availabler if required by custome

9. Cable marking and cable reel marking

The cable sheath shall be marked with white characters according to customer's requirement.