

### 1. Cable Description

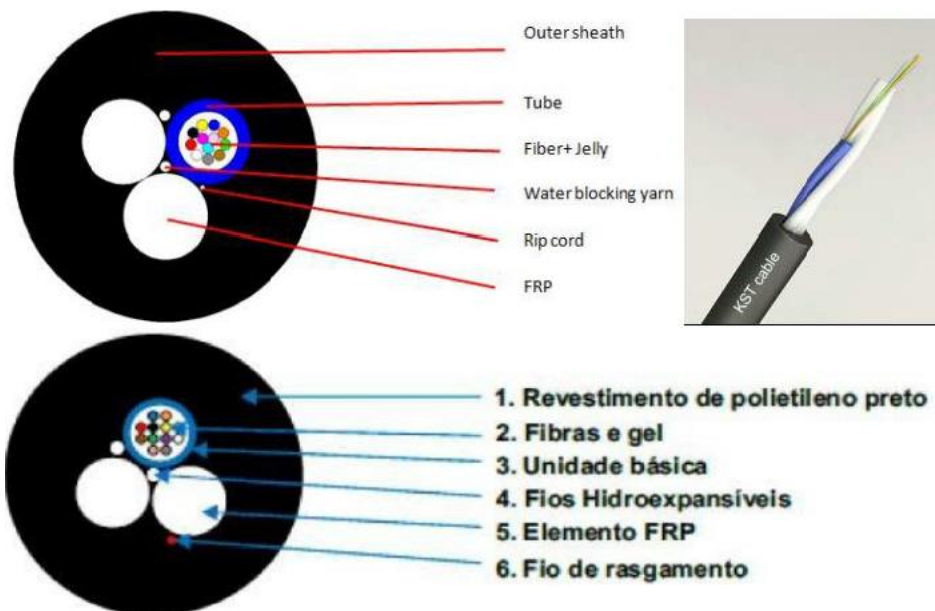
The fibers are positioned in a loose tube made of a high modulus plastic. The tubes are filled with a water-resistant filling compound. FRP rods filled. The cable is completed with a polyethylene (PE) sheath.

### 2. Application

The actual status of overhead power lines, covers the general requirements of single jacket ADSS dielectric Cable for aerial or duct

### 3. Characteristics

- FRP Filled element make cable high tension
- Tube filling gel
- Loose tube stranded
- PE sheath outdoor cable



### 4. Cable construction details

Number of fiber	1~6		
Loose tube	number	1	
	material	PBT	
	diameter	1.5mm ±0.1mm	
Strength member	material	FRP	
	diameter	1.50 mm±0.1mm	
Overall cable diameter	6.80mm±0.5mm		
Cable weight per km	39.0 kg/km±5kg		

Number of fiber	6~12		
Loose tube	number	1	
	material	PBT	
	diameter	2.0mm ±0.1mm	
Strength member	material	FRP	
	diameter	1.50 mm±0.1mm	
Overall cable diameter	6.80mm±0.5mm		
Cable weight per km	39.0 kg/km±5kg		

### Fiber color

Cable	Color code Brazil	Internacional color code
1	Green	Blue
2	Yellow	Orange
3	White	Green
4	Blue	Brown
5	Red	Grey
6	Violet	White
7	Brown	Red
8	Pink	Black
9	Black	Yellow
10	Grey	Violet
11	Orange	Pink
12	Aqua	Aqua

### Cable Mechanical characteristic

core	Cable diameter	weight
1~12	6.80mm±0.5mm	39.0 kg/km±5kg
Temperature range	-40+70	
Min Bending Radius(mm)	Long term	10D
Min Bending Radius(mm)	Short term	20D
Min allowable Tensile Strength(N)	Long term	1000
Min allowable Tensile Strength(N)	Short term	2000
Operation temperature (°C)	-40+70	
Installation temperature (°C)	-20+60	
Storage temperature (°C)	-40+70	

## 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	≤ 0.36/0.23	≤ 0.36/0.23	≤ 3.0/1.0	≤3.0/1.0	≤3.0/1.0
Dispersion	1550nm	Ps/(nm*km)	----	≤18	----	Dispersion
	1625nm	Ps/(nm*km)	----	≤22	----	
Bandwidth	850nm	MHZ.KM	----	≥ 400	≥ 160	Bandwidth
	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 <sup>2</sup> *k m)	≤0.12	≤0.08	----	----	----
Fibre cutoff wavelength λ <sub>c</sub>	nm	≥ 1180, ≤ 1330	≥ 1180, ≤ 1330	----	----	----
Cable sutoffwavelength λ <sub>cc</sub>	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	----	----	----