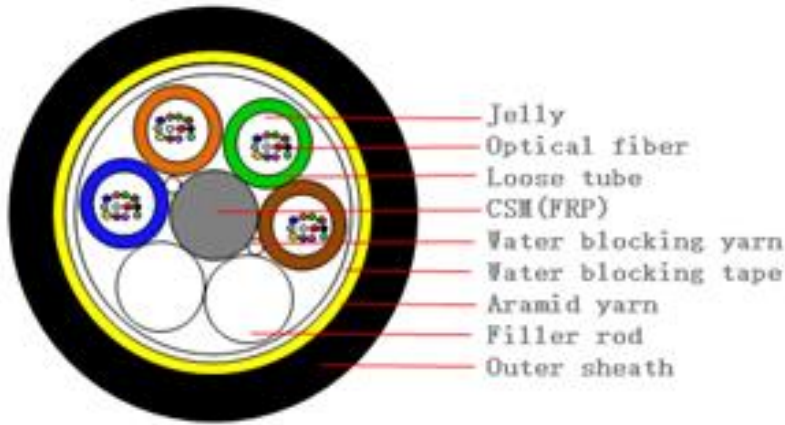


## ADSS



### Characteristic of Optical Cable

- Min. bending radius for installation
  - Static: 10 x cable diameter
  - Dynamic: 20 x cable diameter
- Application temperature range
  - Operation: - 20°C ~ +70°C
  - Installation: -20°C ~ +70°C
  - Storage/transportation: - 20°C ~ +70°C

### Cable Specification:

Loose tube construction, tubes jelly filled, elements (tubes and filler rods) 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 yarn reinforced and PE outer sheath.

### Cable structure and parameter

SN	Item	Unit	Value			
1	No. of fibers	count	6	12/24	36	48
2	No. of fibers per tube	count	2	4	6	12
3	No. of elements	count	6	6	6	6
4	Cable diameter (±5%)	mm	12.1	12.1	12.1	12.7
5	Cable weight (±10%)	kg/km	101	104	103	116
6	MAT (MAX. Allowable Working tension)	N	4000			
7	Short term crush	N/100mm	1000			
8	Max Span	m	100			
9	Ice thickness	mm	0			
10	Wind speed	m/s	30			

### Fiber color code

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Gray	White	Red	Black	Yellow	Purple	Pink	Aqua

### Color codes for loose tube

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Gray	White	Red	Black	Yellow	Purple	Pink	Aqua

## Main mechanical & environmental performance test

Item	Test Method	Acceptance Condition
Tensile Strength IEC 60794-1-2-E1	- Load: Maximum installation tension - Length of cable: about 50m - Load time: 1min	- Fiber strain $\leq 0.33\%$ - No fiber break and no sheath damage.
Crush Test IEC 60794-1-2-E3	- Load: Short term crush - Load time: 1min	- Loss change $\leq 0.1\text{dB}@1550\text{nm}$ - 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: 10J	- No fiber break and no sheath damage.
Torsion IEC 60794-1-2-E7	- Twist angle: $\pm 360^\circ$ - No. of cycle: 10	- No fiber break and no sheath damage.
Cable bend IEC 60794-1-2-E11	- Diameter of mandrel: 20 x OD - Number of turns: 4 - Number of cycles: 3	- No fiber break and no sheath damage.
Water Penetration IEC 60794-1-2-F5B	- Height of water: 1m - Sample length: 3m - Time: 24h	- No water leak from the cable core of the opposite end

## Characteristic of Optical Fiber

### *G652D fiber information*

Mode field diameter (1310nm):	9.2 $\mu\text{m}$ $\pm$ 0.4 $\mu\text{m}$
Mode field diameter (1550nm):	10.4 $\mu\text{m}$ $\pm$ 0.8 $\mu\text{m}$
Cut off wavelength of cabled fiber ( $\lambda_{cc}$ ):	$\leq 1260\text{nm}$
Attenuation at 1310nm:	$\leq 0.36\text{dB/km}$
Attenuation at 1550nm:	$\leq 0.22\text{dB/km}$
Bending loss at 1550nm (100 turns, 30mm radius):	$\leq 0.05\text{dB}$
Dispersion in the range 1288 to 1339nm:	$\leq 3.5\text{ps}/(\text{nm}\cdot\text{km})$
Dispersion at 1550nm:	$\leq 18\text{ps}/(\text{nm}\cdot\text{km})$
Dispersion slope at zero dispersion wavelength:	$\leq 0.092\text{ps}/(\text{nm}^2\cdot\text{km})$