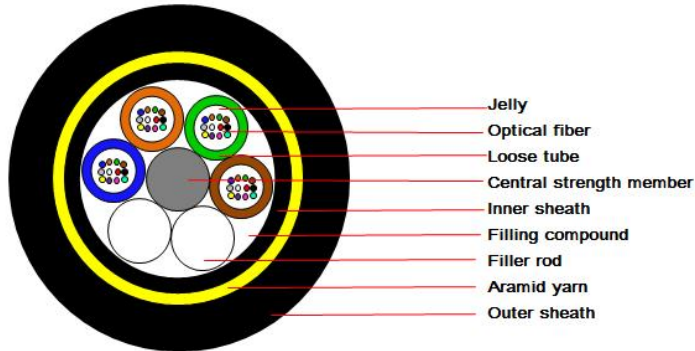


ADSS

1. Cable Cross-section



2. Cable Specification

2.1 Introduction

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, compound filled in the apertures of the cable core, then PE inner sheath, aramid yarn reinforced and PE outer sheath.

2.2 Fiber color code

Fiber color in each tube starts from No. 1 Blue.

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

2.3 Color codes for loose tube & filler rod

Tube color starts from No. 1 Blue. If there are fillers, the color is nature.

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

2.4 Cable structure and parameter

SN	Item	Unit	Value		
1	No. of fibers	count	12/24	36	48
2	No. of fibers per tube	count	4	6	12
3	No. of elements	count	6	6	6
4	Tube diameter	mm	2.6	2.6	2.8
5	FRP diameter	mm	2.8	2.8	3
6	Inner sheath thickness	mm	0.8	0.8	0.8
7	Outer sheath thickness	mm	1.7	1.7	1.7
8	Cable diameter	mm	13.2	13.2	13.9
9	Cable weight	kg/km	144	147	158
10	MAT (Max. Allowable Working tension)	N	3600	3600	4000
11	Short term crush	N/100mm	2200		

12	Max Span	m	100
13	Ice thickness	mm	0
14	Wind speed	Km/h	20

3. Characteristic of Optical Cable

3.1 Min. bending radius for installation

Static: 10 x cable diameter

Dynamic: 20 x cable diameter

3.2 Application temperature range

Operation: -20°C ~ +70°C

Installation: -10°C ~ +60°C

Storage/transportation: -20°C ~ +70°C

3.3 Main mechanical & environmental performance test

Item	Test Method	Acceptance Condition
Tensile Strength IEC 60794-1-2-E1	- Load: Max. Allowable Working 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.

4. Characteristic of Optical Fiber

G.652D fiber information

Mode field diameter (1310nm):	9.2 μm \pm 0.4 μm
Mode field diameter (1550nm):	10.4 μm \pm 0.8 μm
Cut off wavelength of cabled fiber (λ_{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:	$\leq 0.092\text{ps}/(\text{nm}^2\cdot\text{km})$