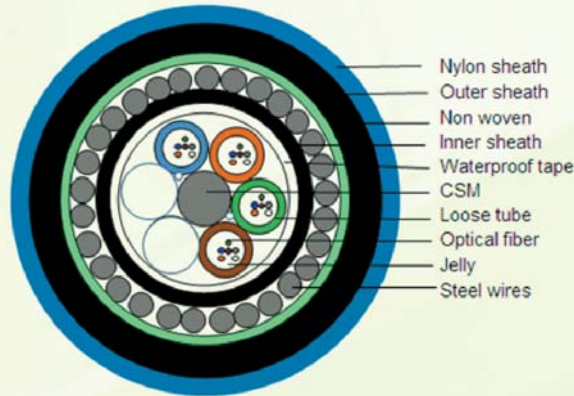


# FIBER CABLE

## Fiber Cable Steel Wire Armoured Loose Tube (SWA, Direct Buried)



### Structure and Mechanical Specification

No of fiber	12 core to 72 core
No of fiber per tube	6 or 12 core depending of total number of cores required
Central Strength Member	GRP (Glass Reinforced Plastic) or FRP (Fiber Reinforced Plastic)
Loose Tube	PBT (Polybutylene Terephthalate)
Inner Sheath	Black High Density Polyethylene (HDPE) + Nylon
Water Blocking	Water swellable yarns + water-blocking tape.
Armouring	Galvanised steel wire
Outer Sheath	Black High Density Polyethylene (HDPE) + Nylon (UV stablized)
Outer diameter	16.1mm

### Transmission Parameters Of Fibers

Fiber/Glass Type	MM(62.5µm)	MM(50µm)	SM(9µm)
Operating Wave Length	850/1300nm	850/1300nm	1310/1550nm
Band width(MHz.Km)	≥160/500	≥200/500	-
Attenuation(db/Km)	3.50/1.50	3.50/1.50	0.45/0.30
Polarization Mode	-	-	≤0.2ps/(km)
Dispersion(PMD)	-	-	-
Cut Off Wave Length	-	-	≤1260nm

### Geometrical Parameters

Fiber/Glass Type	MM(62.5µm)	MM(50µm)	SM(9µm)
Core Diameter	62.5µm	50µm	9µm
Mode Field Non-Circularity(MFD)	-	-	<0.5µm
Core/Cladding Concentricity Error	≤2µm	≤2µm	≤0.6µm
Cladding Diameter	125µm ±2.0	125µm ±2.0	125µm ±2.0
Cladding Non circularity	≤2.0%	≤2.0%	1.00%
Coating/cladding Concentricity	≤12µm	≤12µm	≤12µm
Primary Coating Diameter	<2.0%	<2.0%	<1.0%
Numerical Aperture	0.275±0.015	0.275±0.015	-

### Mechanical/Electrical/ Environment Characteristic

Tensile	2500N - Conform to IEC 794-1-E1
Crush Resistance	Short term : 3000N/100mm Long term : 1000N/100mm
Bending Radius	15*Cable Diameter (Static) 20*Cable Diameter (Dynamic)
Impact Resistance	20 times - Conform to IEC 794-1-E4
Temperature	-10 °C ~ + 70°C (Operating) -10 °C ~ + 70°C (Storage)

### Fiber Colour Code

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

### Fiber Loose Tube

Loose Tube No	1	2	3	4	5
Colour	Blue	Orange	Green	Brown	Filler(White)