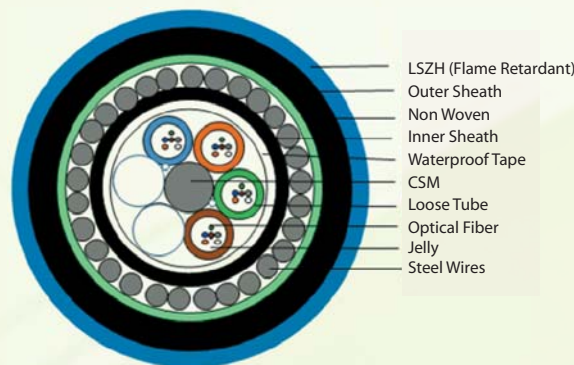


FIBER CABLE

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



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) + LSZH (Flame Retardant)
Water Blocking	Water swellable yarns + water-blocking tape.
Armouring	Galvanised steel wire
Outer Sheath	Black High Density Polyethylene (HDPE) + LSZH (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

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

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	-

Fiber Loose Tube

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

Mechanical/Electrical/ Environment Characteristic

Tensile	2500N - Conform to IEC 794-1-E1
Crush Resistance	Short term : 3000N/100mm Long term : 1000N/100mm
Water Penetration Test	IEC 794-1-F5
Filling Drip/leak Test	IEC 794-1-2-E14
Compressive Load Resistive Test	IEC 794-1-E3
Mechanical Flexure Test	IEC 794-1-E11
Flame retardant	LSZH IEC-60332-1
Attenuation, Return loss and Fault test	Optical Time-Domain Reflectometer (OTDR)
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)