

Optical Fiber CABLE

TECHNICAL DATA SHEET

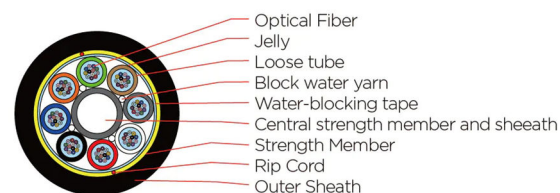
ADSS Aerial Fiber Optical Cable-- ADSS-4/6/12/24/36/48/72/96/144FO



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Product Description:

The ADSS Aerial Fiber Optical Cable is an All-Dielectric Self-Supporting optical fiber cable designed for outdoor aerial installation in telecommunication, FTTH and FTTx networks.



The cable uses a fully dielectric construction with no metallic components. It incorporates optical fibers in gel-filled loose tubes, thermoplastic filler elements, a GFRP central strength member, water-blocking tape, aramid yarn peripheral strength members and a black polyethylene outer sheath.

The all-dielectric construction allows aerial installation without an additional metallic messenger or grounding conductor.

Features

- All-dielectric construction
- No metallic components
- Non-conductive cable design
- Self-supporting aerial installation
- High tensile strength
- Lightweight and compact construction
- Small cable diameter
- Low linear expansion coefficient
- Excellent temperature performance

Construction

Parameter	4/6 FO	12 FO	24/36 FO	48 FO	72 FO	96 FO	144 FO
Structure	1+6	1+6	1+6	1+6	1+6	1+8	1+12
Loose Tubes	1	2	4/6	4	6	8	12
Fibers / Tube	4/6	6	6/6	12	12	12	12
Filler	5	4	2/0	2	0	0	0
CSM	FRP	FRP	FRP	FRP	FRP	FRP	FRP
Strength Member	Aramid Yarn	Aramid Yarn	Aramid Yarn	Aramid Yarn	Aramid Yarn	Aramid Yarn	Aramid Yarn

Environmental Characteristics

Parameter	Specification
Operating Temperature	-40°C to +70°C
Installation Temperature	-20°C to +60°C
Storage & Shipping Temperature	-40°C to +70°C
Installation Environment	Outdoor
Installation Method	Aerial

Bending Radius

Condition Minimum Bend Radius	
Operation	$15 \times \text{Cable Diameter}$
Installation	$25 \times \text{Cable Diameter}$

Optical Fiber Characteristics

Parameter	G.652.D	G.657.A1	G.657.A2	G.657.B3
Operating Wavelength	1310/1550 nm	1310/1550 nm	1310/1550 nm	1310/1550 nm
Typical Attenuation dB/km	0.35/0.21	0.35/0.21	0.35/0.21	0.35/0.21
Maximum Attenuation dB/km	0.40/0.30	0.40/0.30	0.40/0.30	0.40/0.30
Zero Dispersion Slope	≤ 0.091 ps/km·nm ²	≤ 0.092 ps/km·nm ²	≤ 0.092 ps/km·nm ²	≤ 0.092 ps/km·nm ²
Dispersion (1285–1340 nm)	-3.5 to +3.5 ps/km·nm	-3.5 to +3.5 ps/km·nm	-3.5 to +3.5 ps/km·nm	-3.5 to +3.5 ps/km·nm
MFD @1310 nm	$9.1 \pm 0.4 \mu\text{m}$	$8.8 \pm 0.4 \mu\text{m}$	$8.8 \pm 0.4 \mu\text{m}$	$8.6 \pm 0.4 \mu\text{m}$
Cable Cutoff Wavelength	≤ 1260 nm	≤ 1260 nm	≤ 1260 nm	≤ 1260 nm

Cladding Diameter	125 ±1.0 μm	125 ±1.0 μm	125 ±1.0 μm	125 ±1.0 μm
Minimum Bend Radius	16 mm	10 mm	7.5 mm	5 mm

7. Fiber Color Code

Fiber No.	Color
1	Blue
2	Orange
3	Green
4	Brown
5	Grey
6	Natural
7	Red
8	Black
9	Yellow
10	Violet
11	Pink
12	Aqua

Materials

Component	Material
Optical Fiber	Single-Mode G.652.D
Loose Tube	PBT
Central Strength Member	FRP / GFRP
Filler	Thermoplastic
Water Blocking	Water-blocking yarns and tape
Peripheral Strength Member	Aramid Yarns
Rip Cord	2 pcs
Outer Sheath	PE
Outer Sheath Color	Black