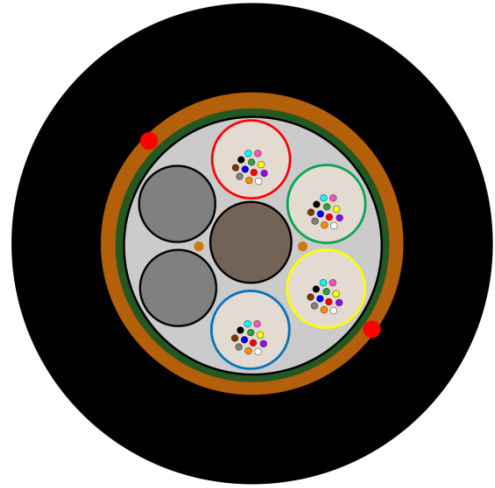


Aerial Fiber Optic Cable

Type: ADSS 48/M12 G652D SJ HDPE 2.5kN D10.1



Application

- ~ For installation on poles or in ducts
- ~ Fully dielectric cable
- ~ Self-supporting aerial cable with aramid reinforcement
- ~ IEC 60793-2 - Optical fiber Part 2: Product specifications
- ~ IEC 60794-1-2 - Optical fiber cables – Part 4: Sectional specification – Aerial optical cables along electrical power lines
- ~ ITU-T G.652 - Characteristics of a single-mode optical fiber cable

Cable Construction

- ~ **Central Strength Member (CSM)**- glass fiber reinforced plastic rod (FRP);
- ~ **PBT Loose Tube** filled with a suitable water tightness compound;
- ~ **Optical Fibers**;
- ~ **Fillers** when needed;
- ~ **Longitudinal Water Tightness**: dry core with water swellable elements;
- ~ **Aramid Yarns** as additional strength member;
- ~ **Ripcords** under jacket
- ~ **Outer Jacket** (Black HDPE);

Stranding: Loose tube and fillers, SZ stranded around CSM;

Technical Characteristics

Optical Fiber Performance - G.652D	
Characteristic	Specified Value
Attenuation Coefficient:	≤ 0.35 dB/km

at 1310 nm Max :	≤ 0.21 dB/km
at 1550 nm Max :	
Mode Field Diameter :	
at 1310 nm	9.2 ±0.4μm
at 1550 nm	10.4 ±0.5μm
Chromatic Dispersion:	
between 1285 - 1330 nm:	≤ 3.5 ps/nm·km
at 1550nm	≤ 17 ps/nm·km
Chromatic dispersion coefficient	λ _{omin} :1300nm λ _{oMax} :1324nm
Zero Dispersion Slope	≤ 0.092 ps/(nm ² ·km)
Cable Cut off Wavelength (λ _{cc})	≤ 1260 nm
Cladding Diameter	125 ± 1.0μm
Cladding Non-Circularity	≤ 1.0%
Core / Cladding Concentricity error	≤ 0.6μm
Coating Diameter (uncoloured)	245 ± 10μm
Cladding / Coating Concentricity error	≤ 12.5μm
Proof Stress	≥ 0.69GPa(100kpsi)
Dynamic Fatigue	≥ 20

Fiber Optic Cable Parameters	
Core Type	G.652.D
Fiber Count	48
Tube Count	4
Filler Count	2
Cable Diameter (mm) - Approx.	10.1
Cable Weight (kg/km) - Approx.	78
Maximum Allowed Tension (MAT)	2.5 kN
Minimum Bending Radius (Installing)	20 x D
Minimum Bending Radius (Operating)	10 x D
Temperature (Operation)	-40°C ~ +70 °C
Temperature (Transportation and Storage)	-40°C ~ +70 °C
Packing	Wooden drum with protection
Delivery Lengths	To be confirmed, ± %5 tolerance
Marking	<OPTIVINE> + <ADSS 48/M12 G652D SJ HDPE 2.5kN D10.1> + <manufacturing date> + <length marking>

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

Tube Color Identification**												
No.	1	2	3	4	5	6	7	8	9	10	11	12
Color	Red	Green	Yellow	Brown	Violet	Turquoise	Black	Pink	Blue	White	Grey	Orange

* When tubes go beyond 12 fibers, the color code repeats and black rings are used to distinguish the fibers.

** When cables go beyond 12 tubes, the color code repeats and black stripes are used to distinguish the tubes.

*** Customized solutions can be offered upon request.