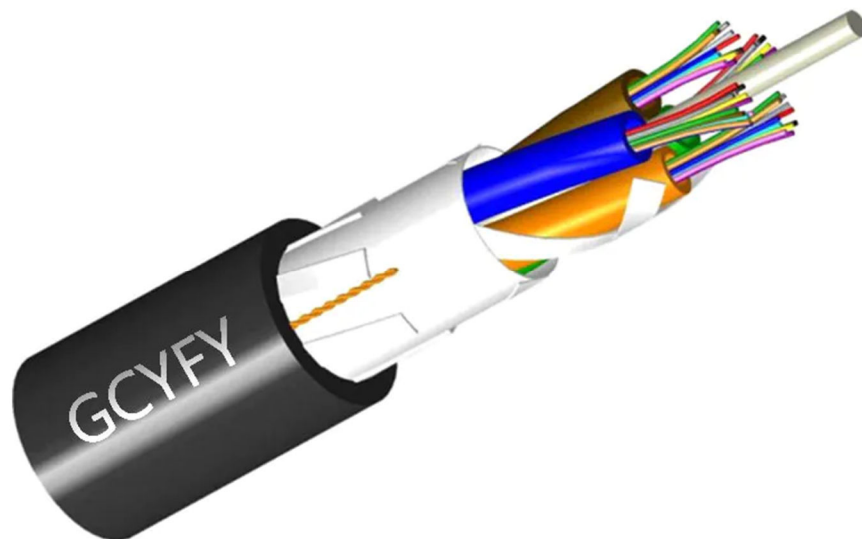


Optical Fiber CABLE

TECHNICAL DATA SHEET

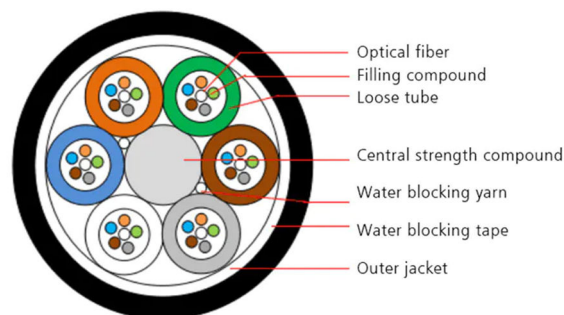
GCYFY Aerial Fiber Optic Cable



144FO GCYFY Aerial Fiber Optic Cable

Product Description:

GCYFY Aerial Fiber Optic Cable is an outdoor aerial fiber optic cable designed for reliable and high-performance telecommunication, FTTH, and FTTx networks. It incorporates high-quality single-mode optical fibers housed in protective loose tubes, a dielectric FRP central strength member, water-blocking materials, aramid yarn reinforcement, and a UV-resistant PE outer sheath. The cable provides excellent mechanical protection, environmental resistance, low optical attenuation, and reliable performance for aerial installations in outdoor communication networks.



Features

- High-quality single-mode optical fiber for reliable data transmission
- Suitable for outdoor aerial installation
- Loose-tube construction providing excellent fiber protection
- FRP/GFRP central strength member for mechanical stability
- Aramid yarn reinforcement for high tensile strength
- Water-blocking construction for protection against moisture penetration
- UV-resistant PE outer sheath for long-term outdoor operation
- Lightweight and compact cable construction
- Excellent resistance to environmental conditions
- Low optical attenuation and stable transmission performance
- Wide operating temperature range
- Suitable for FTTH, FTTx, telecommunication, broadband, and CCTV networks

General Specifications

Parameter	Specification
Product Name	GCYFY Aerial Fiber Optic Cable
Cable Type	Aerial Fiber Optic Cable
Application	Outdoor / Aerial
Fiber Type	Single-Mode
Fiber Standard	ITU-T G.652.D
Fiber Count	4 / 6 / 8 / 12 / 24 / 36 / 48 / 72 / 96 / 144 FO
Cable Structure	Loose Tube
Central Strength Member	FRP / GFRP
Strength Member	Aramid Yarn
Water Blocking	Water-blocking yarn / tape
Outer Sheath Material	PE
Outer Sheath Color	Black
Installation	Aerial

Cable Construction

Component	Material / Description
Optical Fiber	G.652.D Single-Mode Fiber
Loose Tube	PBT
Tube Filling	Thixotropic Gel
Central Strength Member	FRP / GFRP
Filler	PE
Water Blocking	Water-blocking material
Peripheral Strength Member	Aramid Yarn
Rip Cord	Yes
Outer Sheath	PE
Sheath Color	Black

Optical Fiber Characteristics

Parameter	Specification
Fiber Type	G.652.D
Core / Cladding	9/125 μm
Operating Wavelength	1310 / 1550 nm
Attenuation @1310 nm	≤ 0.36 dB/km

Attenuation @1550 nm	≤ 0.22 dB/km
Typical Attenuation @1310 nm	≤ 0.35 dB/km
Typical Attenuation @1550 nm	≤ 0.21 dB/km
Cladding Diameter	125 ± 1.0 μ m
Coating Diameter	245 ± 10 μ m
Cable Cut-off Wavelength	≤ 1260 nm
Zero Dispersion Wavelength	1300–1324 nm
Chromatic Dispersion @1550 nm	≤ 18 ps/(nm·km)
PMD	≤ 0.2 ps/ $\sqrt$ km

Mechanical Characteristics

Parameter	Specification
Tensile Strength	According to fiber count and cable design
Crush Resistance	According to cable design
Impact Resistance	According to applicable IEC requirements
Minimum Bend Radius – Installation	$\geq 20 \times$ Cable Diameter
Minimum Bend Radius – Operation	$\geq 10 \times$ Cable Diameter
Span	According to cable design
Cable Diameter	According to fiber count

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
UV Resistance	Yes
Water Protection	Longitudinal Water Blocking
Outer Sheath	UV-resistant PE