

All-Dielectric Bird-Peck-Prevention ADSS Optical Cable

Model: GYFTY83 / GYFTZY83

Product Description

GYFTY83 is designed using physical and chemical methods to effectively resist rodent bites, ant bites, and bird pecks. The structure of GYFTY83 optical cable incorporates 250µm optical fibers inserted into PBT loose tubes filled with waterproof gel compound. The cable core is centered around a non-metallic strength member (FRP). The interstitial gaps within the cable core are filled with water-blocking compound, and the loose tubes (and fillers) are stranded around the central strength member into a compact, circular core. The core is extruded with an inner sheath and an FRP armored layer, followed by an outer polyethylene (PE) or anti-tracking (AT) sheath.

Cable Cross-Section Structure

Internal Layers & Components:

- PE Outer Sheath
- Aramid Yarn Members
- Optical Fiber (250µm)

- FRP Armored Layer
- Cable Core Filler
- Fiber Filling Gel

- PE Inner Sheath
- Non-Metallic Strength Member (FRP)
- PBT Loose Tube

Product Features

- **Lightweight & Compact:** Small cable diameter reduces ice/wind load and load-bearing stress on towers and supports.
 - **Anti-Rodent & Bird Protection:** Non-metallic FRP armor layer provides superior defense against rodent, ant, and bird peck damage.
 - **Anti-Tracking Sheath Options:** AT outer sheath features high tracking resistance, suitable for power lines of 110kV and above.
- **Aramid Yarn Reinforcement:** Multi-strand aramid yarn strength members enhance optical cable tensile strength.
 - **Special Gel Protection:** Special jelly compound inside loose tubes provides crucial protection for optical fibers.
 - **All-Dielectric Structure:** Insulated all-dielectric materials render it ideal for high lightning/thunder activity zones.

Technical Parameters

Ref. Outer Dia. (mm)	Ref. Weight (kg/km)		Max. Allowable Working Tensile (kN)	Max. Allowable Tensile Load (kN)	Crush Strength (kN)	Strength Member Cross Area (mm²)	Elastic Modulus (kN/mm²)	Thermal Expansion Coeff. (x10 ⁻⁶ /K)	Applicable Span Under Meteorological Conditions (m)			
	PE Sheath	AT Sheath							A	B	C	D
14.5	175	186	2.4	4.5	12	4.6	7.6	1.8	160	100	140	100
15.0	182	192	3.2	6.5	17	7.6	8.3	1.5	230	150	200	150
15.6	195	206	4.5	10.5	26	13.8	10.8	1.2	370	250	350	250
16.9	241	255	8.0	18.8	47	22.0	16.4	0.6	570	380	550	380
17.5	260	274	10.2	26.8	62	32.2	19.1	0.1	750	530	750	510
18.8	296	312	16.7	41.8	105	48.0	24.0	-0.4	1000	750	1000	760

* Note: The above data is for reference only. Storage & Operating Temperature: -40°C to +70°C.

Product Standards

GYFTY83 Optical Cable Standards: Complies with **IEEE 1222** and **IEC 60794-1** international standards.