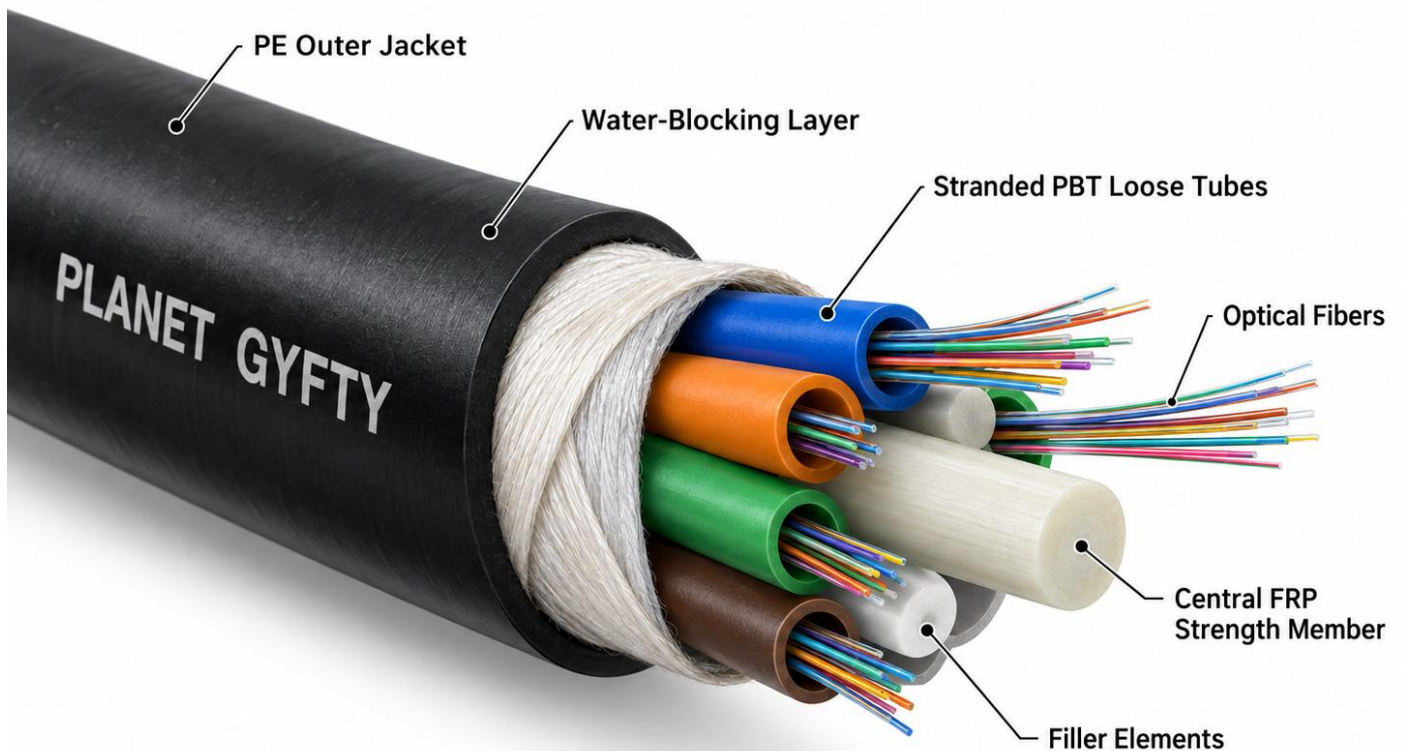


PRODUCT DESCRIPTION

PLANET GYFTY is an all-dielectric, non-metallic outdoor stranded loose-tube fiber optic cable designed for duct, campus backbone, telecom access and protected outdoor infrastructure. The cable uses color-coded optical fibers in high-modulus PBT loose tubes stranded around a central FRP strength member, with longitudinal water blocking and a virgin black UV-resistant PE outer jacket. Standard fiber is OS2 G.652.D; OM3, OM4 and OM5 multimode fibers are available for project-specific requirements.

MAIN CLASSIFICATION

Fiber Type Options	Structure	Cable Classification	Dielectric Status
OS2 / OM3 / OM4 / OM5	Stranded Loose Tube + FRP + Water Blocking + PE	ALL-DIELECTRIC / NON-METALLIC	NON-ARMORED



GENERAL SPECIFICATIONS & CABLE CONSTRUCTION

Environment	Outside Plant (OSP), outdoor duct, campus backbone, access and protected infrastructure routes.
Applications	Telecom access/backbone, campus networks, outdoor distribution, industrial and power-area links requiring electrical isolation.
Fiber Type	OS2 G.652.D standard; G.657.A1/A2 optional; OM3 / OM4 / OM5 multimode available upon project request.
Fiber Count	2F to 144F standard family range; higher counts subject to PLANET engineering approval.
Fiber Proof Test	≥ 100 kpsi proof-tested optical fiber.
Loose Tubes	High-modulus, hydrolysis-resistant virgin PBT; color coded; gel-filled or approved dry design.
Central Strength Member	FRP (Fiber Reinforced Plastic), non-metallic / dielectric.
Water Blocking	Longitudinal water-blocking tape / yarn plus loose-tube filling compound according to approved construction.
Aarmor	None in standard GYFTY construction.
Outer PE Jacket	Virgin black MDPE / HDPE, outdoor grade, UV and weather resistant.
Cable Structure	Stranded PBT loose tubes + fillers around FRP central strength member + water blocking + black PE outer jacket.
Cable Classification	All-Dielectric Non-Metallic Non-Armored.
Cable Marking	PLANET-GYFTY + fiber count + fiber type + sequential meter marking + production traceability.

MECHANICAL & ENVIRONMENTAL PERFORMANCE

Parameter	PLANET Minimum / Reference Requirement
Operating / Storage Temp.	-40°C to +70°C
Installation Temp.	-20°C to +60°C
Tensile Load - Long / Short	≥ 600 N / ≥ 1500 N*
Crush Resistance - Long / Short	≥ 300 N/100 mm / ≥ 1000 N/100 mm*
Bend Radius - Static / Installation	10D / 20D
Water Penetration	Pass IEC 60794-1-22 F5 / current equivalent
Temperature Cycling	-40°C to +70°C; additional attenuation ≤ 0.05 dB/km after test
Impact / Repeated Bend / Torsion	Pass applicable IEC 60794 mechanical test methods; no fiber breakage or jacket cracking
OS2 / OM3 / OM4 / OM5	GYFTY Optical & Compliance Data
	Consultant-Oriented Performance Data

OPTICAL CHARACTERISTICS - OS2 / OM3 / OM4 / OM5

Parameter	OS2 G.652.D	OM3 50/125	OM4 50/125	OM5 50/125
Attenuation @ 850 nm	—	≤ 3.0 dB/km	≤ 3.0 dB/km	≤ 3.0 dB/km
Attenuation @ 953 nm	—	—	—	≤ 3.0 dB/km
Attenuation @ 1300 / 1310 nm	≤ 0.35 dB/km @1310	≤ 1.0 dB/km @1300	≤ 1.0 dB/km @1300	≤ 1.0 dB/km @1300
Attenuation @ 1550 nm	≤ 0.21 dB/km	—	—	—
Attenuation @ 1625 nm	≤ 0.23 dB/km	—	—	—
Mode Field / Core Diameter	8.6-9.5 µm @1310	50 ± 2.5 µm	50 ± 2.5 µm	50 ± 2.5 µm
Cladding Diameter	125.0 ± 0.7 µm	125 ± 1.0 µm	125 ± 1.0 µm	125 ± 1.0 µm
Coating Diameter	245 ± 10 µm	245 ± 10 µm	245 ± 10 µm	245 ± 10 µm
PMD	≤ 0.20 ps/√km	—	—	—
EMB @ 850 nm	—	≥ 2000 MHz·km	≥ 4700 MHz·km	≥ 4700 MHz·km
EMB @ 953 nm	—	—	—	≥ 2470 MHz·km
Fiber Standard	ITU-T G.652.D / IEC 60793-2-50	IEC 60793-2-10 A1a.2	IEC 60793-2-10 A1a.3	IEC 60793-2-10 A1a.4

DESIGN GUIDE / DIMENSIONAL CONTROL

Fiber Count	Typical O.D.	Nominal Weight	Max Tensile	Crush Resistance
12F	Approx. 8.0-9.0 mm	Approx. 65-85 kg/km	1500 N	1000 N/100 mm
24F	Approx. 8.5-9.5 mm	Approx. 75-95 kg/km	1500 N	1000 N/100 mm
48F	Approx. 9.5-10.5 mm	Approx. 90-115 kg/km	1500 N	1000 N/100 mm
72F	Approx. 10.5-11.5 mm	Approx. 110-135 kg/km	1500 N	1000 N/100 mm
96F	Approx. 11.5-13.0 mm	Approx. 130-165 kg/km	1500 N	1000 N/100 mm

STANDARDS & COMPLIANCE

IEC 60794 Series	Optical fiber cable construction, mechanical and environmental test framework.
ITU-T G.652.D	Standard OS2 single-mode fiber.
IEC 60793-2-50	Single-mode optical fiber product specification reference.
IEC 60793-2-10	Multimode optical fiber product specification reference for OM3 / OM4 / OM5.
RoHS	Hazardous substance compliance subject to production declaration / report.
CE Marking	Subject to applicable EU conformity documentation.
CPR / EN 50575	Optional project-specific classification and declaration only.

MANDATORY FACTORY TESTS & DOCUMENTATION

- 100% OTDR test per drum at 1310 nm and 1550 nm for OS2; appropriate 850/1300 nm test set for multimode production where applicable.
- Factory attenuation report and fiber-batch traceability for each production lot.
- Construction report confirming virgin PBT loose tubes, FRP central strength member, water-blocking materials and virgin outdoor-grade PE jacket.
- Mechanical type-test evidence for tensile, crush, impact, bend, repeated bend / flex and torsion to applicable IEC 60794 methods.
- Water penetration and temperature-cycling test evidence.
- RoHS declaration / report and final drum inspection with sealed cable ends and continuous sequential meter marking.

RECOMMENDED APPLICATIONS

- Outdoor duct and conduit networks.
- Campus and inter-building backbone.
- Telecom access, ISP and metropolitan distribution links.
- Power, industrial and infrastructure routes requiring electrical isolation.
- Protected outdoor routes where metallic armor is not required.
- OS2 as the standard long-distance selection; OM3 / OM4 / OM5 for project-specific multimode outdoor links.

SELECTION NOTE

GYFTY is an all-dielectric, non-metallic outdoor stranded loose-tube cable. It contains no steel tape, aluminum tape or steel-wire strength member in the standard construction. For metallic armored protection select GYTS / GYTA53 as appropriate; for self-supporting aerial applications select ADSS when required by the route design.

QUALITY & CHANGE CONTROL

- Virgin high-modulus, hydrolysis-resistant PBT loose tubes and virgin outdoor-grade PE jacket; no silent recycled-material substitution.
- FRP central strength member shall be maintained as the standard dielectric tensile member unless an alternate approved all-dielectric design is specified.
- Longitudinal water blocking shall use approved water-swellable tape / yarn and filling compound according to the final construction.
- No change to fiber manufacturer/type, PBT compound, FRP member, water-blocking system, PE compound, tube allocation, cable diameter or mechanical performance without prior PLANET approval.
- Final production drawing and type-test documentation shall be approved before mass production.

AVAILABLE PROJECT OPTIONS

- OS2 G.657.A1 / G.657.A2 bend-insensitive single-mode fiber.
- OM3, OM4 or OM5 50/125 µm multimode fiber.
- Dry-core / dry water-blocking configuration subject to approved construction.
- Custom fiber counts and loose-tube allocation within the approved GYFTY design range.
- Custom jacket printing and sequential meter marking.
- CPR / flame-rated versions only when separately tested and documented for the exact construction.

ORDERING DESCRIPTION

Part Number Family	PL-GYFTY
Typical OS2 Description	PLANET GYFTY - 24F - OS2 G.652.D - Stranded Loose Tube - FRP Central Strength Member - All-Dielectric - Black PE Jacket
Typical OM3 Description	PLANET GYFTY - 24F - OM3 50/125 - Stranded Loose Tube - FRP Central Strength Member - All-Dielectric - Black PE Jacket
Typical OM4 Description	PLANET GYFTY - 24F - OM4 50/125 - Stranded Loose Tube - FRP Central Strength Member - All-Dielectric - Black PE Jacket
Typical OM5 Description	PLANET GYFTY - 24F - OM5 50/125 - Stranded Loose Tube - FRP Central Strength Member - All-Dielectric - Black PE Jacket

PRODUCT IDENTIFICATION PRINCIPLE

The approved product description shall state the actual construction and shall not rely only on the Chinese family code: fiber type + fiber count + stranded loose-tube structure + FRP central strength member + water blocking + all-dielectric / non-metallic classification + outer PE jacket + intended installation method.

25-Year System Warranty

Subject to proper installation and certified components usage.

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25-Year System Warranty

Subject to proper installation and certified components usage.

Part Number	Description
PL-GYFTY-xxS2	Outdoor Fiber Optic Cable Single Mode OS2
PL-GYFTY-xxM3	Outdoor Fiber Optic Cable Multi Mode OM3
PL-GYFTY-xxM4	Outdoor Fiber Optic Cable Multi Mode OM4
PL-GYFTY-xxM5	Outdoor Fiber Optic Cable Multi Mode OM5

XX: Number of Core