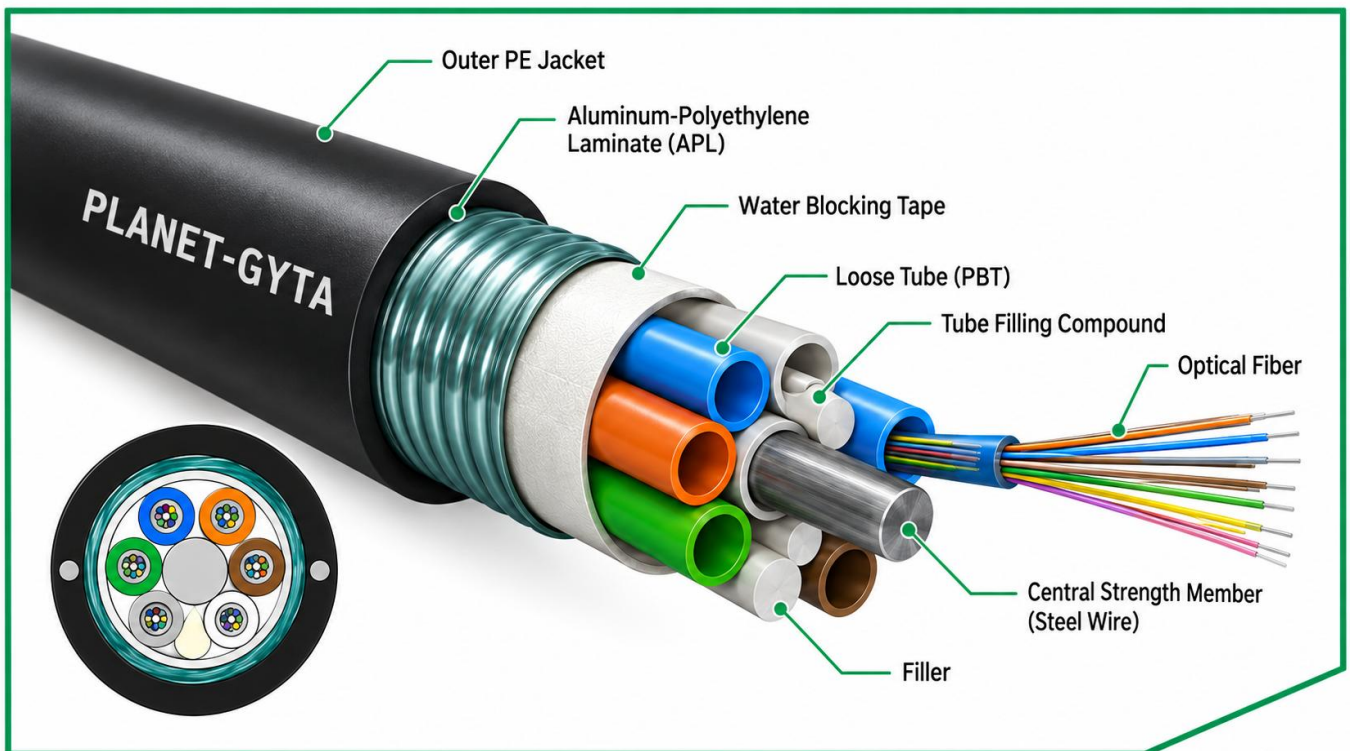


PRODUCT DESCRIPTION

PLANET GYTA is a metallic outdoor stranded loose tube fiber optic cable intended for duct, campus backbone and protected outdoor routes. Its defining construction uses color-coded fibers in high-modulus PBT loose tubes stranded around a phosphated steel central strength member, longitudinal water blocking, an Aluminum-Polyethylene Laminate (APL) metallic moisture barrier / light protective layer and a virgin black PE outer sheath. OS2 is the standard fiber selection; OM3, OM4 and OM5 are available for project-specific multimode requirements.

MAIN CLASSIFICATION

Fiber Type Options	Structure	Cable Classification	Dielectric Status
OS2 / OM3 / OM4 / OM5	Stranded Loose Tube	METALLIC - APL Barrier / Light Protection	NOT All-Dielectric



GENERAL SPECIFICATIONS & CABLE CONSTRUCTION

Environment	Outside Plant (OSP), duct, campus backbone, protected outdoor infrastructure.
Applications	Telecom access, metropolitan distribution, inter-building backbone, road/tunnel and protected routes.
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 engineering approval.
Fiber Proof Test	≥ 100 kpsi proof-tested optical fiber.
Loose Tube	High-modulus, hydrolysis-resistant virgin PBT; max. 12 fibers/tube unless approved.
Central Strength Member	Phosphated steel wire / metallic central strength member.
Water Blocking	Tube filling compound plus cable-core water-blocking tape/yarn and/or filling compound.
APL Moisture Barrier	Polymer-coated aluminum tape / Aluminum-Polyethylene Laminate, nominal ≥ 0.20 mm.
Outer Jacket	Virgin black MDPE or HDPE, UV-resistant outdoor grade; nominal thickness ≥ 1.80 mm.
Cable Marking	PLANET-GYTA + fiber count + fiber type + sequential meter marking + production traceability.

MECHANICAL & ENVIRONMENTAL PERFORMANCE

Parameter	PLANET Minimum Requirement
Operating / Storage Temp.	-40°C to +70°C
Installation Temp.	-20°C to +60°C
Tensile - Long Term	≥ 600 N
Tensile - Short Term	≥ 1500 N up to 96F; ≥ 2000 N for 98-120F; ≥ 2500 N for 122-144F
Crush - Long / Short Term	≥ 300 / 1000 N per 100 mm
Bend Radius - Static / Installation	≤ 10D / ≤ 20D
Water Penetration	Pass IEC 60794 F5 or current equivalent
Temperature Cycling	-40°C to +70°C; additional attenuation ≤ 0.05 dB/km after test

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	Target Max O.D.	Target Max Weight	Min. Tensile L/S	Min. Crush L/S
24F	≤ 9.7 mm	≤ 95 kg/km	600 / 1500 N	300 / 1000 N/100 mm
48F	≤ 10.5 mm	≤ 115 kg/km	600 / 1500 N	300 / 1000 N/100 mm
72F	≤ 11.5 mm	≤ 135 kg/km	600 / 1500 N	300 / 1000 N/100 mm
96F	≤ 13.7 mm	≤ 170 kg/km	600 / 1500 N	300 / 1000 N/100 mm
144F	≤ 16.5 mm	≤ 240 kg/km	600 / 2500 N	300 / 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 specified.
- Factory attenuation report and fiber-batch traceability for each production lot.
- Construction report confirming PBT material, steel strength member, APL thickness, PE compound and jacket thickness.
- 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 meter marking.

RECOMMENDED APPLICATIONS

- Underground duct / conduit networks.
- Campus and inter-building backbone.
- Telecom access and metropolitan distribution.
- Road, tunnel and protected outdoor infrastructure routes.
- Aerial installation only where the approved mechanical design and supporting method permit it.
- OS2 long-distance backbone as the standard selection; OM3 / OM4 / OM5 for project-specific multimode outdoor links.

SELECTION NOTE

GYTA is primarily a metallic outdoor duct/backbone cable using an APL metallic moisture barrier / light protective layer. It is NOT an all-dielectric cable. For stronger corrugated steel-tape mechanical armor select GYTS; for heavy direct-burial protection select GYTA53; for all-dielectric outdoor routes consider GYFTY or ADSS according to installation method.

QUALITY & CHANGE CONTROL

- Virgin PBT loose-tube material and virgin outdoor-grade PE jacket; no silent recycled-material substitution.
- Phosphated steel central strength member unless an alternate construction is explicitly approved in writing.
- APL nominal metal-laminate thickness ≥ 0.20 mm and outer jacket nominal thickness ≥ 1.80 mm.
- No change to fiber manufacturer/type, tube allocation, water-blocking system, APL, PE compound, cable diameter or mechanical performance without prior PLANET approval.
- Final production drawing and 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 construction subject to approved design.
- Custom fiber count and loose-tube allocation.
- 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-GYTAxxza
Typical OS2 Description	PLANET GYTA - 48F - OS2 G.652.D - Stranded Loose Tube - Steel CSM - APL ≥ 0.20 mm - Virgin Black PE ≥ 1.80 mm
Typical OM3 Description	PLANET GYTA - 24F - OM3 50/125 - Stranded Loose Tube - Steel CSM - APL Metallic Barrier - Black PE
Typical OM4 Description	PLANET GYTA - 24F - OM4 50/125 - Stranded Loose Tube - Steel CSM - APL Metallic Barrier - Black PE
Typical OM5 Description	PLANET GYTA - 24F - OM5 50/125 - Stranded Loose Tube - Steel CSM - APL Metallic Barrier - Black PE

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 + loose-tube structure + steel central strength member + water blocking + APL metallic barrier + PE jacket + intended installation method.

25-Year System Warranty

Subject to proper installation and certified components usage.

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

XX: Number of Core