FIBER OPTIC CABLE · GYTA53

GYTA53

Stranded Loose Tube Steel Tape Armored Double Sheath Cable

G.652D / G.655 · 2–216 cores · Direct buried

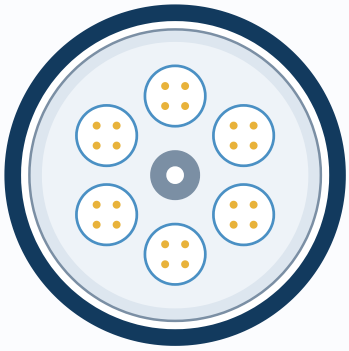
PRODUCT DESCRIPTION

GYTA53 combines an aluminium tape moisture barrier with a steel tape armour and an intermediate PE sheath. The stranded loose tube core is wrapped in copolymer-coated aluminium tape, over-sheathed, then armoured with PSP steel tape and finally sheathed in PE. The result is a cable that resists water ingress, rodent attack and crush loads while staying lighter than a double steel tape design.

KEY FEATURES

- Aluminium tape moisture barrier plus steel tape armour — two independent protection layers
- Intermediate PE sheath prevents water travelling along the cable after outer sheath damage
- Crush resistance 1000/3000 N per 100 mm, tensile 1000/3000 N
- Lighter than GYTY53 at the same core count — lower tower and duct loading
- Suitable for direct burial, duct and aerial installation from one drum

Other fibre types, core counts and sheath compounds are available on request — see the ordering information on page 2.



Cross-section — schematic, not to scale

- Outer sheath
- Armour / moisture barrier
- Gel-filled loose tube
- Central strength member
- 250 µm fibre

GENERAL SPECIFICATIONS

CABLE TYPE	**GYTA53**
APPLICATION	**Direct buried · Duct · Aerial**
STANDARDS	**YD/T 901 · IEC 60794-1**
TEMPERATURE	**-40 °C to +70 °C**
SHEATH OPTIONS	**PE · LSZH**

CABLE CONSTRUCTION

Central strength member	Single steel wire, PE coated
Loose tube	PBT, gel-filled, max. 12 fibres per tube
Core assembly	Tubes and fillers stranded around the central member
Moisture barrier	Copolymer-coated aluminium tape
Inner sheath	MDPE over the aluminium tape
Armour	Copolymer-coated steel tape (PSP)
Outer sheath	UV-stabilised MDPE, black

Options: LSZH or flame-retardant sheath · anti-termite and anti-rodent additives · non-metallic strength member · ripcord · customer sheath printing · dry core on request.

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STRUCTURE AND DIMENSIONS

Cable model	Fibre count	Loose tubes	Fillers	Nominal weight (kg/km)
GYTA53-2~6Xn	2~6	1	5	177
GYTA53-8~12Xn	8~12	2	4	177
GYTA53-14~18Xn	14~18	3	3	177
GYTA53-20~24Xn	20~24	4	2	177
GYTA53-26~30Xn	26~30	5	1	177
GYTA53-32~36Xn	32~36	6	0	177
GYTA53-38~48Xn	38~48	4	1	194
GYTA53-50~60Xn	50~60	5	0	194
GYTA53-62~72Xn	62~72	6	0	204
GYTA53-74~84Xn	74~84	7	1	239
GYTA53-86~96Xn	86~96	8	0	239
GYTA53-98~108Xn	98~108	9	1	275
GYTA53-110~120Xn	110~120	10	0	275
GYTA53-122~132Xn	122~132	11	1	312
GYTA53-134~144Xn	134~144	12	0	312
GYTA53-146~216Xn	146~216	13~18	5~0	312

TENSILE LOAD L / S	CRUSH RESISTANCE L / S	BEND RADIUS S / D
1000 / 3000	**1000 / 3000**	**12.5D / 25D**
N	N/100 mm	× cable OD

OPTICAL CHARACTERISTICS

Fibre type	Attenuation 1310 nm (dB/km) typ. / max	Attenuation 1550 nm (dB/km) typ. / max	Cut-off λcc (nm)	Remark
G.652D	0.36 / 0.50	0.22 / 0.40	≤ 1260	Low water peak, full band 1260–1625 nm
G.655	0.40 / 0.50	0.23 / 0.40	≤ 1450	Non-zero dispersion shifted, for DWDM backbone
G.657A1/A2	0.36 / 0.50	0.22 / 0.40	≤ 1260	Bend insensitive, min. bend radius 10 mm

Attenuation measured at +20 °C on cabled fibre, before splicing. Multimode fibre (OM1–OM4) available on request.

TYPE TESTS

Test	Method	Acceptance
Tensile strength	IEC 60794-1-21 E1	Rated load applied, no fibre strain, Δα ≤ 0.05 dB
Crush	IEC 60794-1-21 E3	Rated load applied, Δα ≤ 0.05 dB after recovery
Impact	IEC 60794-1-21 E4	10 impacts, 4.5 J, R300 mm, Δα ≤ 0.05 dB
Temperature cycling	IEC 60794-1-22 F1	−40 °C to +70 °C, 2 cycles, Δα ≤ 0.05 dB/km
Water penetration	IEC 60794-1-22 F5B	1 m head, 24 h, no water at the far end

ORDERING INFORMATION

Order code: **GYTA53-[cores]Xn-[fibre type]-[sheath].** Example: GYTA53-48Xn-G652D-PE. State the fibre type, sheath compound, drum length and any sheath marking. Standard drum length 2 km or 4 km; other lengths on request.

Nominal values, subject to normal manufacturing tolerances.
Core counts and fibre types outside the table are built to order — weight, tensile and bending data confirmed on the order drawing.

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