FIBER OPTIC CABLE · GYTY53

GYTY53

Stranded Loose Tube Double Sheath Double Armor Cable

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

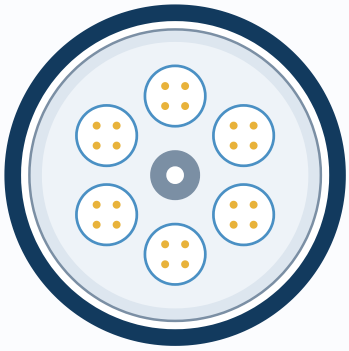
PRODUCT DESCRIPTION

GYTY53 is specified where the route is buried directly and the risk of mechanical damage is high. The stranded loose tube core is protected by a PSP steel tape, an intermediate PE sheath, a second layer of steel tape and a final PE sheath. The double armour and double sheath give the highest crush and tensile ratings in the standard loose tube family, and the intermediate sheath stops water travelling along the cable even if the outer sheath is penetrated.

KEY FEATURES

- Double steel tape armour with intermediate PE sheath for direct burial without duct
- Tensile rating 1000/3000 N and crush rating 1000/3000 N per 100 mm
- Two sheath layers block longitudinal water migration after sheath damage
- Rodent resistant — suited to agricultural and urban buried routes
- Available in flame-retardant and anti-termite variants on request

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	**GYTY53**
APPLICATION	**Direct buried · Heavy duty · Harsh soil**
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
Inner armour + sheath	PSP steel tape with bonded MDPE inner sheath
Outer armour	Second 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)
GYTY53-2~6Xn	2~6	1	5	160
GYTY53-8~12Xn	8~12	2	4	160
GYTY53-14~18Xn	14~18	3	3	160
GYTY53-20~24Xn	20~24	4	2	160
GYTY53-26~30Xn	26~30	5	1	160
GYTY53-32~36Xn	32~36	6	0	160
GYTY53-38~48Xn	38~48	4	1	174
GYTY53-50~60Xn	50~60	5	0	174
GYTY53-62~72Xn	62~72	6	0	185
GYTY53-74~84Xn	74~84	7	1	214
GYTY53-86~96Xn	86~96	8	0	214
GYTY53-98~108Xn	98~108	9	1	245
GYTY53-110~120Xn	110~120	10	0	245
GYTY53-122~132Xn	122~132	11	1	281
GYTY53-134~144Xn	134~144	12	0	281
GYTY53-146~216Xn	146~216	13~18	5~0	281

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: **GYTY53-[cores]Xn-[fibre type]-[sheath].** Example: GYTY53-48Xn-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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