

Underground Duct Traditional Unarmored Fiber Optic Cable GYFTY

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Variants

1M 3.00mm 2U Slot 14 Single Power Enterprise 200m

Details

Overview:

The specification covers the construction and properties of optical fiber cable.

The cable shall be used directly in aerial access network.

The cable generally meets the latest relevant IEC, ITU-T Recommendation or better.

The single-mode fiber shall operate in 1310nm and 1550nm.

The cable could serve for 40 years without any significant deterioration.

Construction:

Parameter	Value
Fiber Type	Single-mode type ITU-T G.652D
Material	Ge-doped fused silica
Mode Field Diameter	1310 nm: 9.2 ±0.4μm
Core Concentricity Error	≤ 0.5μm
Cladding Diameter	125±0.7μm
Cladding Non-Circularity	≤ 1.0%
Coating Material	UV-curable acrylic
Coating Diameter	≤ 250±10μm (Colored)
Cable Model	GYFTY-2/4/12/24/48/96F

Optical characteristics:

Parameter	Value
Attenuation @ 1310 nm	? 0.35 dB/km
Attenuation @ 1383 nm	? 0.35 dB/km
Attenuation @ 1550 nm	? 0.20 dB/km
Attenuation @ 1625 nm	? 0.25 dB/km
Zero-dispersion Wavelength	1300~1324 nm
Zero-dispersion Slope	? 0.092 ps/(nm ² * km)
Chromatic Dispersion Coefficient	1330 nm: ? 3.5 (ps/nm.km)
	1550 nm: ? 18 (ps/nm.km)
Cable Cut-off Wavelength (?cc)	? 1260 nm
Polarization Mode Dispersion	? 0.2 ps/(km) ^{0.5}
Macrobend Loss (Before Cable)	G.652D 30mm radius x 100 turns: ? 0.1 dB (at 1550 nm)
Fiber Proof-tested	0.69 GPa

Constuction 1:

Parameter	Value
Cable Type	GYFTY
Number of Fibers	2/F/4F/12F/24F/48F/96F
Fiber Construction	Consult 3.1
Central Strength Member	Material: FRP
Water Blocking Member	Material: Water-Blocking Tape & Yarn
Tube Material	PBT
Filling Compound Material	Water-Blocking Thixotropic Gel
Filler Material	PP
Rip Cord	Material: Polyester

Parameter	Value
Outer Sheath Material	PE
Sheath Thickness	1.5 ± 0.1 mm

Test Properties:

Test	Test Method	Detail Specifications	Acceptance Criteria
Filling Gel Drip	IEC-60794-1-2 Method E14	80°C ±0.05 gr	-
Filling Material: OIT	ASTM D 3895 and GR-20	Clause 6.3.1: ±20 min	-
Cable Material Compatibility	GR-20 Clause 6.3.4	85°C, 30 days	-
Fiber-stripping force	IEC 60793-1-32	30 mm	1.0 ± Fstip ± 9.0 N
PBT Tube Properties	Tube wrapping around	No cracks or delamination	Per GR-20 Clause 6.3.4