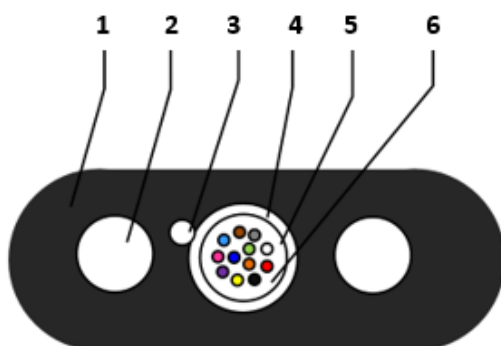


Canyon® Optical Fiber Cable Specification

Technity Solutions Inc.

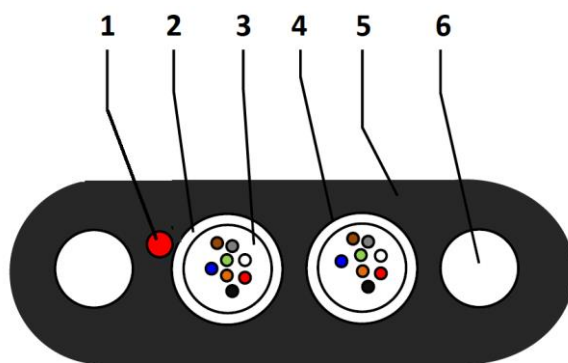
GYQFXTBY-2-12 B6a1

Cable Design



GYQFXTBY-2-12 B6a1

1. PE sheath 2. Non-metallic strength member 3. Water blocking material
4. Loose tube 5. Tube filling 6. Optical fiber



GYQFXTBY-13-24 B6a1

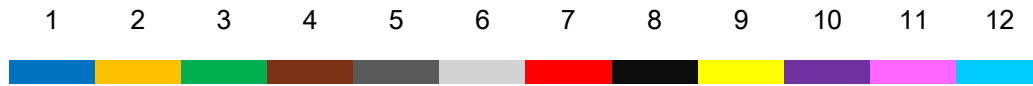
1. Water blocking material 2. Loose tube 3. Tube filling compound
4. UV Fiber 5. Outer Sheath 6. Strength member

Cable Specification

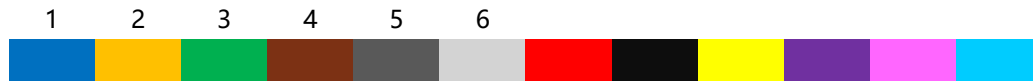
Item	contents	Value	
Loose tube	number	1	2
	Outer diameter (mm)	2.0	2.0
Max. fiber counts per tube	G.657A1/G.652D	2~12	13~24
strength member	material	FRP	
	number	2	
	diameter (mm)	2.0	
Water Blocking Material	Material	Water Blocking Yarn	
	number	1	
sheath	Material	HDPE	
	Color	Black	
	Thickness (mm)	Nominal: 0.8	
Cable diameter(mm) Approx.		7.7×3.8(±0.3)	9.1×3.8(±0.3)
Cable weight(kg/km) Approx.		35 ± 3	52 ± 5

Color Code for Fiber and Loose Tube

Fiber color



Loose tube color(s)



Cable Performance

Cable performance		
Test	Specified Value	Acceptance Criteria
Tensile <small>IEC 60794-1-21, E1</small>	1350N	$\Delta\alpha\leq 0.05$ dB, no sheath damage
Crush <small>IEC 60794-1-21, E3</small>	1500 N/10cm	$\Delta\alpha\leq 0.05$ dB, no sheath damage
Impact <small>IEC 60794-1-21, E4</small>	4.5 J	$\Delta\alpha\leq 0.05$ dB, no sheath damage
Repeated Bending <small>IEC 60794-1-21, E6</small>	R=30D, 25 cycles	$\Delta\alpha\leq 0.05$ dB, no sheath damage
Torsion <small>IEC 60794-1-21, E7</small>	1m, 10 cycles, $\pm 180^\circ$	$\Delta\alpha\leq 0.05$ dB, no sheath damage
Temperature Cycling <small>IEC 60794-1-22, F1</small>	2 cycles, -40~+70°C	$\Delta\alpha\leq 0.10$ dB/km, no sheath damage
Water Penetration <small>IEC 60794-1-22, F5</small>	3m sample, 1m height, 24 h	No water leakage

Item	Value	
	2~12	24
Tensile performance(N)	1350	1350
Crush(N/100mm)	1500	1500
Operation temperature:	-40°C~+70°C	
Installation temperature	-15°C~+60°C	
Storage temperature	-40°C~+70°C	

Fiber Performance

FiberHome® B6a.1 (G.657A1) single mode fiber


Characteristics		Acceptance Value
Attenuation	@ 1310nm	≤0.340dB/km
	@ 1383nm	≤0.340dB/km
	@ 1550nm	≤0.200dB/km
	@ 1625nm	≤0.240dB/km
Mode field diameter (MFD)	@ 1310nm	8.20-8.65μm
Chromatic dispersion coefficient	1288~1339nm (absolute value)	≤3.5 ps/(nm·km)
	1271~1360nm (absolute value)	≤5.3 ps/(nm·km)
	@ 1550 nm	≤18 ps/(nm·km)
Zero-dispersion wavelength		1300nm~1324nm
Zero-dispersion slope		≤0.092 ps/(nm ² ·km)
Cable cut-off wavelength λ _{cc} (nm)		≤1260 nm
Polarization mode dispersion (PMD, for fiber on the reel)		≤0.20 ps/km ^{1/2}
Cladding diameter		125±0.7 μm
Cladding non-circularity		≤0.7%
Core/cladding concentricity error		≤0.5 μm
Proof test		≥0.69 GPa (100kpsi)

Sheath Marking

The outer sheath is marked in 1 meter intervals as follows:

2022 Canyon < Type designation (defined by purchaser) > ** Ft**

Note: Telephone Symbol is like 

Laser Symbol is like 

Cable Packing and Marking

1.1 Standard cable length for each reel

Standard length: 4000m per reel Tolerance: ± 1%.

Other cable length available.

1.2 Reel type

Each length of the cable shall be wound on a separate iron wooden reel.

The arbor holes provided in the reels shall be approximately 105 mm with a wood or steel hub in the arbor hole (in lieu of fiberboard).

1.3 Reel marking

Details given below shall be distinctly marked with a weather-proof material on both outer sides of the reel flange:

Purchaser's name

Reel number

Name of the manufacturer

Year of manufacture

Arrow showing the direction the drum shall be rolled

1.4 Cable end retaining methods

Iron wooden reel: inner retaining.

Wooden reel: outer retaining recommended, inner retaining or groove retaining available.



Iron wooden reel



Wooden reel

----- **End of Specification** -----