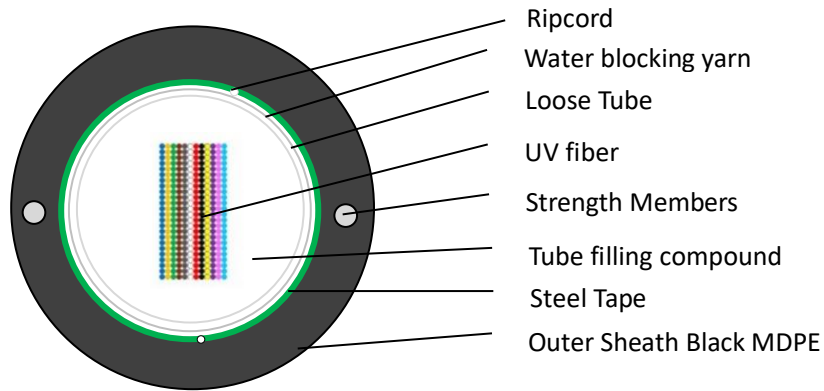


Canyon® Optical Fiber Cable Specification

Technity Solutions Inc.

Duct Cables GYDXTW 48-288FO

Cable Design



Cable Specification

Cable description					
Item	Specified	Measure	Measure	Measure	Measure
Cable Cores		48	72	144	288
No. of Tubes		1	1	1	1
Fiber Counts in Tube		48	72	144	288
Thickness of Outer Sheath	mm	2.8	3	3	2.9
Cable Diameter	mm	13±0.5	13.6±0.5	15.4±0.5	19.3±0.5
Cable Weight	kg/km	157±15	170±15	211±15	301±15
Tensile Strength	N	2700	2700	2700	2700

Color Code for Fiber and Loose Tube

Fiber color



Cable Performance

Cable performance		
Test	Specified Value	Acceptance Criteria
Tensile <small>IEC 60794-1-21, E1</small>	2700 N	$\Delta\alpha \leq 0.05$ dB, no sheath damage
Crush <small>IEC 60794-1-21, E3</small>	2200 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, $-25 \sim +70^\circ\text{C}$	$\Delta\alpha \leq 0.10$ dB/km, no sheath damage
Water Penetration <small>IEC 60794-1-22, F5</small>	3m sample, 1m height, 24 h	No water leakage


Fiber Performance


G.652D performance		
Characteristics	Acceptance Value	
Attenuation	@ 1310nm	≤ 0.34 dB/km
	@ 1383nm	≤ 0.34 dB/km
	@ 1550nm	≤ 0.20 dB/km
	@ 1625nm	≤ 0.23 dB/km
Mode field diameter (MFD)	@ 1310nm	9.2 ± 0.4 μm
	@ 1550nm	10.4 ± 0.5 μm
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	1302nm~1322 nm	
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	≤ 0.60 %	
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:

2020 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: $\pm 1\%$.

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** -----