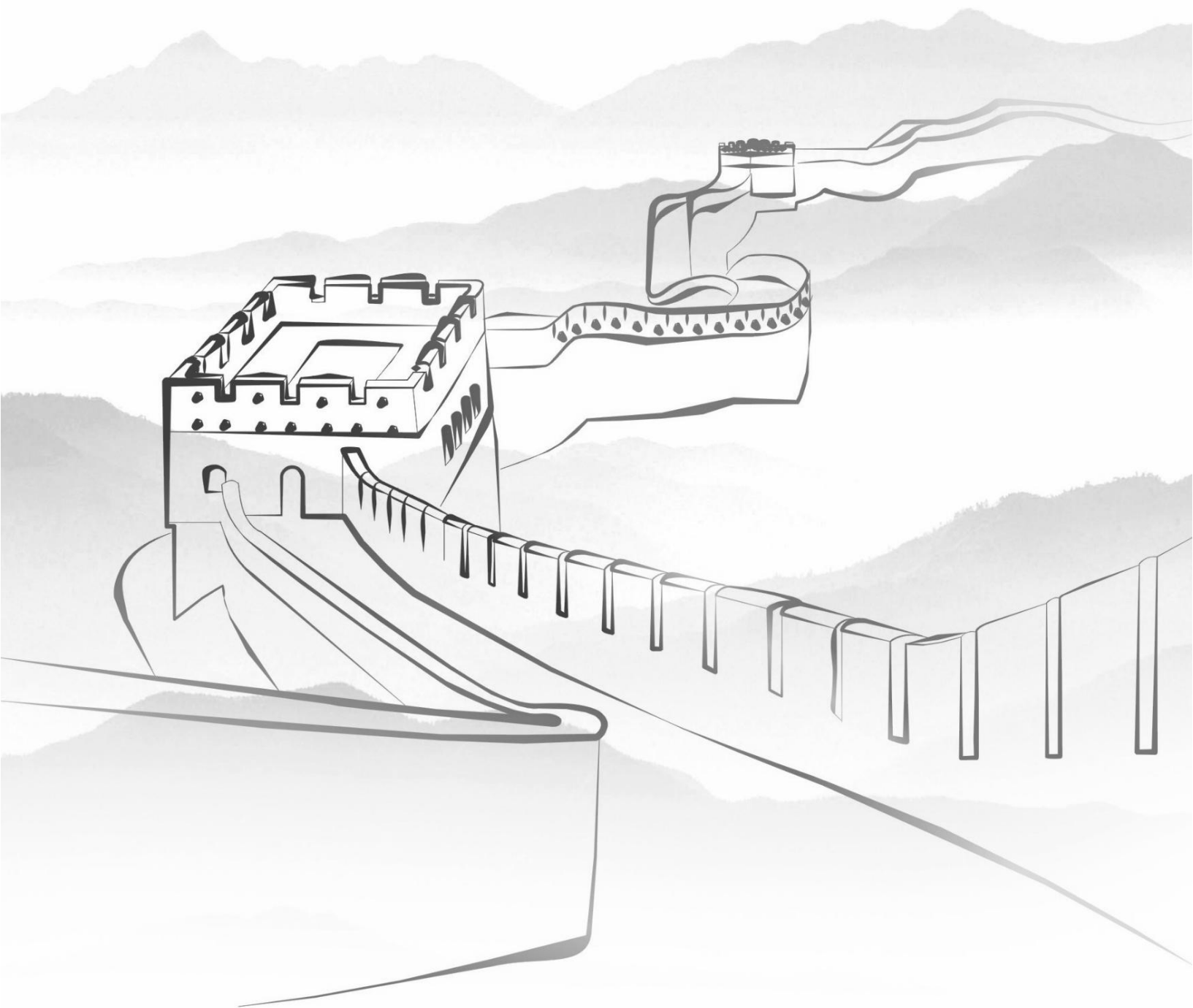


Optical Fiber Cable Specification



Duct Cable GYFS – 72 G.652D

Corrugated Steel Tape Armored

Cable Design



- **Central Strength Member (CSM):** Glass fiber reinforced plastic rod (GFRP), with PE sheath covering when needed.
- **Loose Tube:** PBT plastic material, containing 12 fibers and filled with a suitable water tightness jelly.
- **Stranding:** Loose tube & filler SZ stranded around CSM.
- **Longitudinal Water Tightness:** Dry core with water swellable elements.
- **Ripcord:** 2 polyester ripcords under each sheath.
- **Steel Tape:** Corrugated Steel-Plastic tape as protection layer.
- **Outer Sheath:** Black HDPE.

Cable Specification

Cable description		
Item	Specified	Measure
Cable Cores		72
No. of Tubes		6
Fiber Counts in Tube		12
No. of Fillers		/
Tube/Filler- Φ	mm	2.2
CSM- Φ	mm	2.3
Coated CE- Φ	mm	/
Thickness of Outer Sheath	mm	1.6
Nom. Cable Diameter	mm	11.4 ± 0.5 mm
Nom. Cable Weight	kg/km	117 ± 10 kg
Tensile Force	N	2000

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>	2000 N	$\Delta\alpha \leq 0.05$ dB, no sheath damage
Crush <small>IEC 60794-1-21, E3</small>	2000 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	≤ 0.35 dB/km
	@1383nm	≤ 0.35 dB/km
	@1550nm	≤ 0.21 dB/km
	@1625nm	≤ 0.24 dB/km
Mode field diameter (MFD)	@1310nm	9.2 ± 0.6 μm
	@1550nm	10.5 ± 1.0 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		1300nm~1324 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 ± 1.0 μm
Cladding non-circularity		≤ 1.0 %
Core/cladding concentricity error		≤ 0.6 μm
Proof test		≥ 0.69 GPa (100kpsi)

Sheath marking

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

2019 FiberHome < Type designation (defined by purchaser) > **** m

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 -----