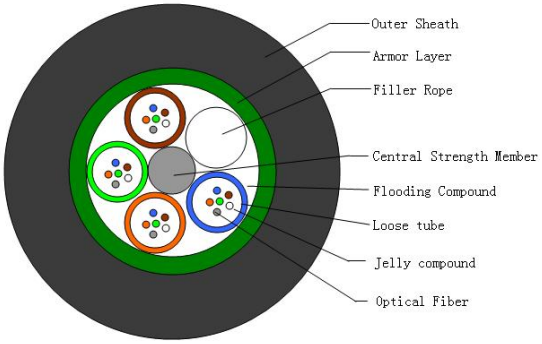
Outdoor Fiber Optical Cable Duct GYTS Fiber Optic Cable Light Armored SM G652D 96 144 288 Core PE

Cable Design



Technical data

No. of cable		2~30	32~60	62~72	74~96	144	216	288
Fiber Model		G.652D						
Design(StrengthMember+Tube&Filler)		1+5	1+5	1+6	1+8	1+12	1+6+12	1+9+15
Central Strength Member	Material	Steel Wire						
	Diameter（±0.05）mm	1.4	1.4	2.0	2.0	2.0	2.0	2.0
Loose Tube	Material	PBT						
	Diameter（±0.06）mm	1.7	1.9	1.9	1.9	1.9	1.9	1.9
	Thickness（±0.03）mm	0.32	0.35	0.35	0.35	0.35	0.35	0.35
	The Max.Core NO./Tube	6	12	12	12	12	12	12
Filler Rope	Material	LDPE						
	Colour	White						
	Diameter（±0.06）mm	1.7	1.9	1.9	1.9	1.9	1.9	1.9
Water Blocking layer（Material）		Flooding Compound						
Armoring	Material	Steel Strip						
	Thickness（±0.03）mm	0.25						
Outer Sheath	Material	MDPE						
	Thickness（±0.2）mm	1.8						
Cable Diameter		9.0	9.7	10.3	11.6	14.2	14.2	16.2
Cable Wetght		85	95	120	160	235	245	300
Min. bending radius	Without Tension	10.0×Cable- ϕ						
	Under Maximum Tension	20.0×Cable- ϕ						
Temperature range（℃）	Installation	-20~+60						
	Transport&Storage	-40~+70						
	Operation	-40~+70						

Fibre&Loose Tube Colours

NO.	1	2	3	4	5	6
Colour	Blue	orange	green	brown	gray	white
	7	8	9	10	11	12
	red	black	Yellow	Violet	Pink	Aqua

The properties of single mode optical fiber (ITU-T Rec. G.652.D)

Item	Specification
Fiber type	Single mode
Fiber material	Doped silica
Attenuation coefficient @ 1310 nm @ 1383 nm @ 1550 nm @ 1625 nm	 ≤ 0.36 dB/km ≤ 0.32 dB/km ≤ 0.22 dB/km ≤ 0.30 dB/km
Point discontinuity	≤ 0.05 dB
Cable cut-off wavelength	≤ 1260 nm
Zero-dispersion wavelength	1300 ~ 1324 nm
Zero-dispersion slope	≤ 0.092 ps/(nm^2.km)
Chromatic dispersion @ 1288 ~ 1339 nm @ 1271 ~ 1360 nm @ 1550 nm @ 1625 nm	 ≤3.5 ps/(nm. km) ≤5.3 ps/(nm. km) ≤18 ps/(nm. km) ≤22 ps/(nm. km)
PMD_Q (Quadrature average*)	≤0.2 ps/km$^{1/2}$
Mode field diameter @ 1310 nm	9.2±0.4 um
Core / Clad concentricity error	≤ 0.5 um
Cladding diameter	125.0 ± 0.7 um
Cladding non-circularity	≤1.0%
Primary coating diameter	245 ± 10 um
Proof test level	100 kpsi (=0.69 Gpa), 1%
Temperature dependence 0oC~ +70oC @ 1310 & 1550nm	≤ 0.1 dB/km

Application:

NO.	Item		Requirement
1	Allowable Tensile Strength	Short Term	1500 N
		Long Term	600 N
2	Allowable Crush Resistance	Short Term	1000 (N/100mm)
		Long Term	300 (N/100mm)

Main mechanical & environmental performance test

Item	Test Method	Acceptance Condition
Tensile Strength IEC 794-1-2-E1	- Load: Short term tension - Length of cable: about 50m	- Fiber strain ≤ 0.36% - Loss change ≤ 0.1 dB @1550 nm - No fiber break and no sheath damage.
Crush Test IEC 60794-1-2-E3	- Load: Short term crush - Load time: 1min	- Loss change ≤ 0.05dB@1550nm - No fiber break and no sheath damage.
Impact Test IEC 60794-1-2-E4	- Points of impact: 3 - Times of per point: 1 - Impact energy: 5J	- Loss change ≤ 0.1dB@1550nm - No fiber break and no sheath damage.
Temperature Cycling Test YD/T901-2001-4.4.4.1	- Temperature step: +20°C→-40°C→+70°C →+20°C - Time per each step: 12 hrs - Number of cycle: 2	- Loss change ≤ 0.05 dB/km@1550 nm - No fiber break and no sheath damage.

Sheath marking

The color of marking is white, but if the remarking is necessary, the white color marking shall be printed newly on a different position.
An occasional unclear of length marking is permitted if both of the neighboring markings are clear.
The both cable ends are sealed with heat shrinkable end caps to prevent water ingress.