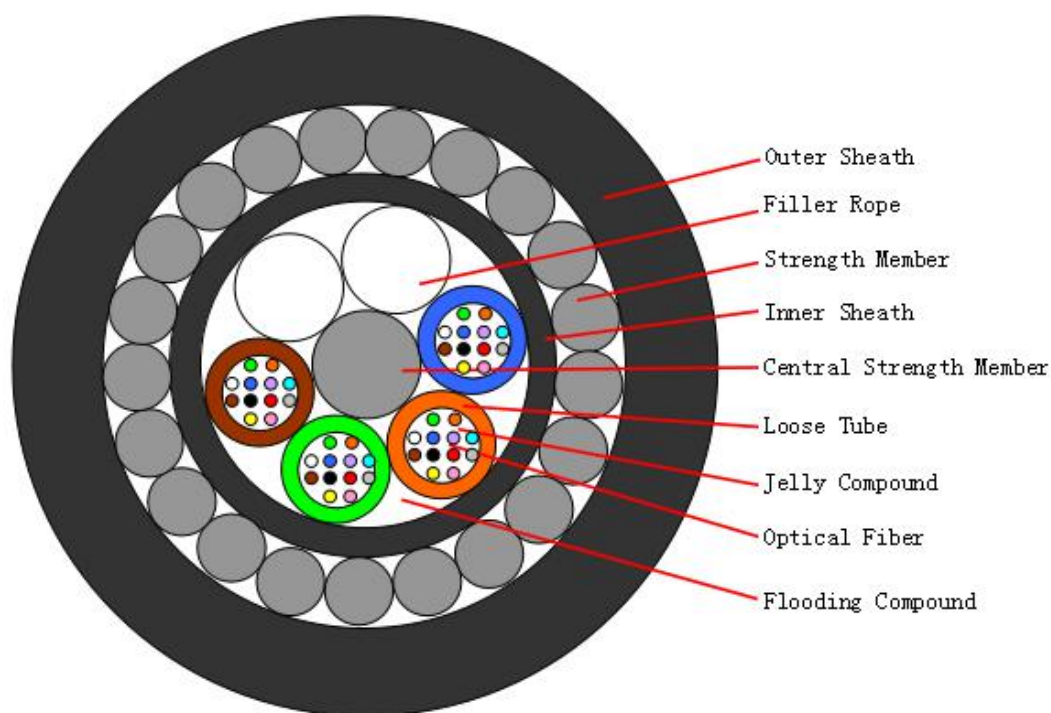


## Outdoor Steel wire Non-Armored Fiber Optical Cable G655 PE Black (GYFTY33)



### Technical data

No. of cable		48
Fiber Model		G652D
Central Strength Member	Material	FRP
	Diameter ( $\pm 0.05$ ) mm	2.0
Loose Tube	Material	PBT
	Diameter ( $\pm 0.06$ ) mm	1.8
	Thickness ( $\pm 0.03$ ) mm	0.30
	The Max.Core NO./Tube	12
Filler rope	Material	LDPE
	Diameter ( $\pm 0.06$ ) mm	1.80
	No.	2
Water Blocking layer (Material)		Flooding Compound
Inner Sheath	Material	MDPE
	Thickness ( $\pm 0.1$ ) mm	0.8
Strength Member	Material	Galvanized steel wire
	Diameter ( $\pm 0.05$ ) mm	1.2
Outer Sheath	Material	MDPE
	Thickness ( $\pm 0.2$ ) mm	1.8
Cable Diameter ( $\pm 0.2$ ) mm		13.2
Cable Weight ( $\pm 20$ ) kg/km		310
Min. bending radius	Without Tension	15.0×Cable-φ
	Under Maximum Tension	30.0×Cable-φ

Temperature range (°C)	Installation	-20~+60
	Transport&Storage	-40~+70
	Operation	-40~+70

### Fibre Color

No.	1	2	3	4	5	6
Color	Blue	Orange	Green	Brown	Gray	White
No.	7	8	9	10	11	12
Color	Red	Black	Yellow	Violet	Pink	Aqua

### Loose Tube Color

No.	1	2	3	4
Color	Blue	Orange	Green	Brown

### The properties of single mode optical fiber (ITU-T Rec. G.655)

Item	Specification
Fiber type	Single mode
Fiber material	Doped silica
Attenuation coefficient @ 1550 nm @ 1625 nm	≤ 0.22 dB/km ≤ 0.24 dB/k
Point discontinuity	≤ 0.05 dB
Cable cut-off wavelength	≤ 1450 nm
Zero-dispersion wavelength	1520 nm
dispersion slope	≤ 0.084ps/(nm <sup>2</sup> .km)
PMD <sub>Q</sub> (Quadrature average*)	≤0.2 ps/km <sup>1/2</sup>
Mode field diameter @ 1550nm	9.6±0.5 um
Core / Clad concentricity error	≤ 0.5 um
Cladding diameter	125.0 ± 0.7 um
Cladding non-circularity	≤1.0%
Primary coating diameter	245 ± 8 um
Proof test level	100 kpsi (=0.69 Gpa), 1%
Temperature dependence 0°C +70°C @ 1550 & 1625nm	≤ 0.1 dB/km

### Main mechanical & environmental performance test

Item	Test Method	Acceptance Condition
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Tensile Strength IEC 794-1-2-E1	- Load: 5000N - Length of cable: about 50m	- Fiber strain $\leq 0.33\%$ - Loss change $\leq 0.1$ dB @1550 nm - No fiber break and no sheath damage.
Crush Test IEC 60794-1-2-E3	- Load: 5000N/100mm - Load time: 1min	- Loss change $\leq 0.1$ dB@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 $\leq 0.1$ dB@1550nm - No fiber break and no sheath damage.
Temperature Cycling Test IEC 60794-1-2-F1	- Temperature step: +20°C→-40°C→+70°C →+20°C - Time per each step: 12 hrs - Number of cycle: 2	- Loss change $\leq 0.05$ dB/km@1550 nm - No fiber break and no sheath damage.

### Sheath marking

The optical fiber drop cable shall have sequentially numbered length marking at intervals of approximately 1 meter. The starting number of ordering length for any coil shall begin with zero meter. The accuracy of the measurement of length marking shall be held within the limits of  $\pm 1\%$ .

- a) Manufacturer's name
- b) Type of wire
- c) Year and month of manufacture
- d) Length marking each meter along the wire