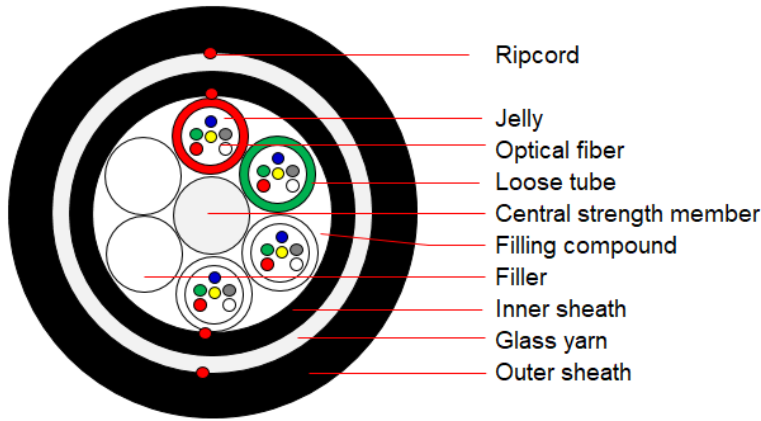


GYFTY73

1. Cable cross-section (only for reference, not to scale)



2. Cable description

Loose tube construction, tubes with jelly filled, elements (tubes and fillers when necessary) laid up around non-metallic central strength member, polyester yarns used to bind the cable core, filling compound filled in the apertures of the cable core, 2 ripcords, PE inner sheath, glass yarns armored, 2 ripcords and PE outer sheath.

3. Fiber & tube color

3.1 Fiber color code start from NO.1 Red.

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

3.2 Tube color code start from NO.1 Red.

No.	1	2	The rest of loose tubes
Color	Red	Green	White

3.3 Filler color is natural.

4. Structure parameter

Item	Contents	Unit	Value			
Fiber count	Number	/	24	48	96	144
Cable structure	/	/	1+6	1+8	1+8	1+12
Fiber No. per tube	Number	/	6	6	12	12
Loose tube	Number	/	4	8	8	12
Central strength member	Material	/	FRP with cushion when necessary			

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Item	Contents	Unit	Value			
Outer sheath	Thickness	mm	Minimum 1.5			
Cable diameter	±5%	mm	12.3	13.3	14.0	16.9
Cable weight	±10%	kg/km	120	148	162	240

Note: Sheath thickness not consider ripcord portion, sizes and values without tolerances are nominal values.

5. Mechanical & Environmental Performance

Item	Contents	Value
Max. Tensile load	Short term	3000 N
Max. crush resistance	Short term	2200 N/100mm
Min. bending radius	Installation	25 x cable diameter
	Operation	12.5 x cable diameter
Temperature range	Operation	-30°C ~ +70°C
	Installation	-10°C ~ +60°C
	Storage/transportation	-30°C ~ +70°C

6. Main mechanical & environmental performance test

Item	Test Method	Acceptance Condition
Tensile Strength IEC 60794-1-21-E1	- Load: Short term tension - Length of cable: ≥ 50m - Load time: 1min	- Fiber strain ≤ 0.3% - Loss change ≤ 0.1dB@1550nm. - No fiber break and no sheath damage.
Crush Test IEC 60794-1-21-E3	- Load: Short term crush - Load time: 1min	- Loss change ≤ 0.1dB@1550nm. - No fiber break and no sheath damage.
Impact Test IEC 60794-1-21-E4	- Points of impact: 3 - Times of per point: 1 - Impact energy: 5J	- Loss change ≤ 0.1dB@1550nm after test. - No fiber break and no sheath damage.
Repeated Bending IEC 60794-1-21-E6	- Bending radius: 20 x OD - No. of cycle: 25	- Loss change ≤ 0.1dB@1550nm after test. - No fiber break and no sheath damage.

7. OPTICAL FIBER

G657A1 Characteristic of Optical Fiber

Item	Unit	Specification	
		G. 657A1	
Mode field diameter	1310nm	μm	9.2 ± 0.4
	1550nm	μm	10.4 ± 0.5
Cladding diameter	μm	125.0 ± 0.7	
Cladding non-circularity	%	≤1.0	
Core concentricity error	μm	≤0.5	
Coating diameter	μm	242 ± 7	
Coating/cladding concentricity error	μm	≤12	
Cable cut-off wavelength	nm	≤ 1260	
Attenuation Coefficient	1310nm	dB/km	≤0.36

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Item		Unit	Specification
			G. 657A1
		1550nm	dB/km
			≤0.22
Macro-bend loss (1 turn, 10mm radius)	1550nm	dB	≤0.75
	1625nm	dB	≤1.5
Proof stress level		kpsi	≥100

Other parameters meet standard ITU-T G.657.

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