TECHNICAL DATA SHEET

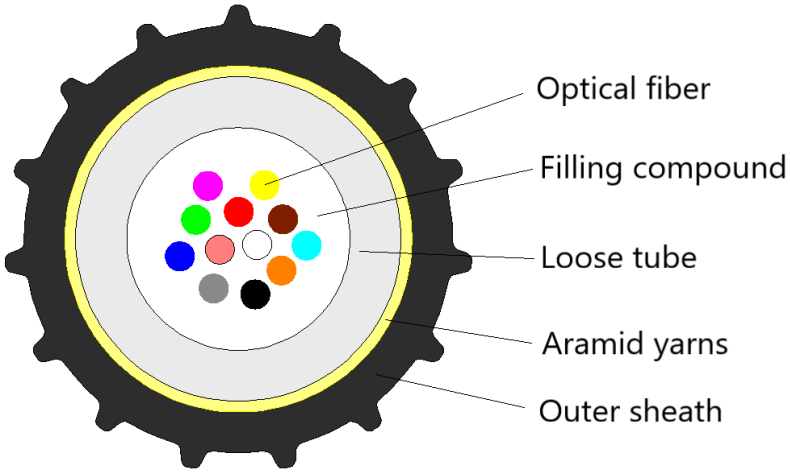
FOR

UNI-TUBE OPTICAL FIBER CABLE

AIR BLOWN APPLICATIONS

(SM 2/4/8/12 FIBERS)

1. Cable Cross-section



2. Cable Identification

2.1 Fiber color code

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

3. Cable Assembly & Dimensions

Cable type	Fiber count	Tube diameter	Sheath thickness (nominal*)	Overall diameter (nominal**)	Weight (approx.)
		mm	mm	mm	kg/km
GCYFXTY	2	1.8	0.3	2.5	7
GCYFXTY	4	1.8	0.3	2.5	7
GCYFXTY	8	1.8	0.3	2.5	7
GCYFXTY	12	2.0	0.3	2.7	8

** The nominal sheath thickness may have a tolerance with ±0.1mm.*
** * The nominal overall diameter may have a tolerance with ±0.2mm.*

4. Performance of Cabled Optical Fiber

The performance of cabled optical fiber (ITU-T Rec. G.657.A1)

Item	Specification
Fiber type	Single mode
Fiber material	Doped silica
Attenuation coefficient @ 1310 nm @ 1550 nm	 ≤ 0.36 dB/km ≤ 0.23dB/km
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) ≤20 ps/(nm. km) ≤22 ps/(nm. km)
Mode field diameter @ 1310 nm	9.2±0.4 um
Core / Clad concentricity error	≤ 0.6 um
Cladding diameter	125.0 ± 1.0 um
Cladding non-circularity	≤1.0%

5. Performance of Optical Fiber Cable

5.1 Cable bending radius: 10 x cable diameter (static)

20 x cable diameter (dynamic)

5.2 Application temperature range

Operating temperature range : -20°C to +60°C

Storage / Transport temperature range : -20°C to +70°C

Installation temperature range : -10°C to +50°C

5.3 Mechanical & environmental performance test

S/N	Item	Test Method	Acceptance Condition
1	Tensile Strength IEC 60794-1-2-E1	- Load:1.0G - Length of cable under load: 50 m - Load time: ≥10min. - G is the weight of 1km cable	- Attenuation change ≤ 0.1 dB @1550 nm
2	Crush Test IEC 60794-1-2-E3	- Load: 500N/100 mm ,15min,3times 100N/100 mm,1min,3times	- Attenuation change ≤ 0.1 dB @1550 nm - No fiber break
3	Flexing IEC 60794-1-2-E11A	- Diameter: 40mm - Turns:3 - Cycles:5	Attenuation change ≤ 0.1 dB @1550 nm during and after test - No damage

4	Damp Heat Cycle IEC 60068-2-38	-Cycles: 10 -Temperature: 25℃,65℃,25℃,65℃,25℃,-10℃,25℃	- Attenuation change ≤ 0.1 dB @1550 nm
5	Temperature Cycling Test IEC 60794-1-2-F1	- Temperature step: +20℃→-20℃→+70℃ →+20℃ - Time per each step: 12hrs - Number of cycle: 1	- Attenuation change ≤ 0.1 dB @1550 nm
4	Water soak IEC 60794-5	- Time:1000hrs - Temp: 18/22°C	Attenuation change ≤ 0.1 dB @1550 nm after temp cycle

6. Packing

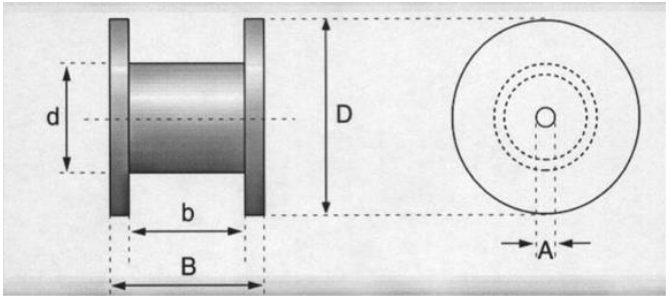
6.1 Each single cable length been wound on an iron stand-wooden composite or pure wooden drum.

6.2 Standard drum length is 2000m±2%.

6.3 Covered by plastic buffer sheet.

6.4 Sealed by strong wooden battens.

6.5 At least 1m of cable inner end should be reserved for testing.



Note: The value “D” contain the seal dimension

Cable Type	Drum length	D	d	B	b
GCYFXTY	m	mm	mm	mm	mm
2/4/8F	2000	380	200	320	300
12F	2000	420	200	320	300

END