TECHNICAL DATA SHEET
SECTION 1
CABLE CONSTRUCTION
GYFTSXX-50M (OM3)
MULTI LOOSE TUBE, SINGLE LSOH SHEATH, NON METALLIC ARMORED

- Light weight structure enables easy and fast installation
- Application as Indoor cable as well as Outdoor due to light structure
- Installation in cable ducts, cable trays or in cable conduits.
  Special LS0H outer jacket provides excellent resistance during installation and protection against external effects.
- Suitable to be installed with blowing / pluging method
- Application both as backbone cable for WAN Telecommunication Systems and as data lines for LAN/Structure Cabling

Characteristics	
Fibre optic type	50 / 125 / 242 µm Multimode Fiber (OM3)
Central strength member - Material - Diameter	 - PE coated Reinforced Glass Fibre - 2.2 mm nominal
Loose tubes - Material - Outer Diameter - Type of filling compound	 - Polybuteneterephteleta (PBT) - 2.05 mm nominal - Thixotropic jelly
Tube assembly - Tube layout - Stranding type	 - Tubes stranded around central strength member symmetrically - Tubes stranded with SZ stranding method
Flooding compound - Material	 - Water Swellable Yarns/Jelly Filling
Core wrapping	- Water Swellable Tape//Polyester Tape
Rip Cords	Rip cord applied longitudinally to open cable easily
Dielectric tensile strength member	Glass Yarn
Outer Sheath - Material - Thickness	 - BLUE LSOH UV resistant - 1.5 mm nominal
Drum Length	- 4000 meters ± 5 %

Mechanical Characteristics			
Test	**Reference Standard**	**Specified Value**	**Acceptance Criteria**
Tensile Strength -Installation	IEC 60794-1-2-E1(A-B)	≥1200 N	Δα ≤ 0.05 dB/km
Bending Under Tension	IEC 60794-1-2-E18	1500N; 10 cycles	Δα ≤ 0.05 dB/km
Repeated Bending	IEC 60794-1-2-E6	200mm; 100N; 35 cycles; 2s	No sheath damage.
Crush	IEC 60794-1-2-E3	2200 N /100 mm (15min.)	Δα ≤ 0.05 dB, no damage
Impact	IEC 60794-1-2-E4	D=300 mm, 3 impacts, R= 50 mm, 20 Joule hammer impact energy	No sheath damage; No permanent change in attenuation.
Torsion	IEC 60794-1-2-E7	100N, +/- 1, 1000mm, 5 cycles	Δα ≤0.10 dB, no damage
Kink	IEC 60794-1-2-E18	300 mm loop, T=20°C	No kink shall occur
Cable Bend	IEC 60794-1-2-E11 (A)	R=400 mm, 5 turns, 3 cycles, T=-15°C	Δα ≤ 0.05 dB, no damage
Temperature Cycling	IEC 60794-1-2-F1	-40°C to +70°C	Max.0.10 dB/km
Ageing	IEC 60794-1-2-E5	Accelerated aging test	Stripping force stability
Water Penetration	IEC 60794-1-2-F5B	Sample=3m, Water column=1m	No water leakage in 24h

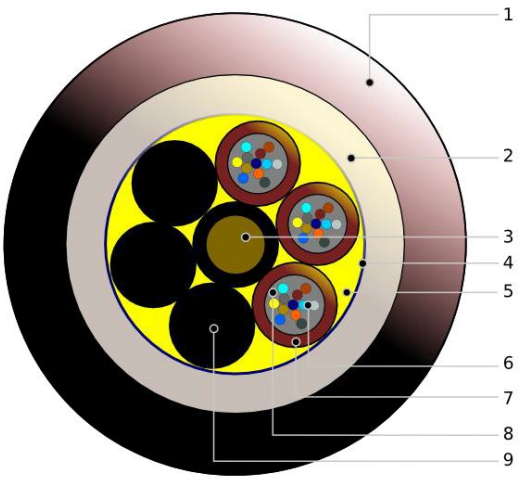
Fiber Count	Buffer Count	Filler Count	Cable Diameter nominal (mm)	Cable Weight (kg/km)
6,12,24,48	3	3	10.5	100

TECHNICAL DATA SHEET
SECTION 2
OPTICAL CABLE CHARACTERISTIC

Property	Value
Attenuation @ 850 nm maximum	3.0 dB/Km
Attenuation @ 1300 nm maximum	1.0 dB/Km

TECHNICAL DATA SHEET
SECTION 3
TECHNICAL DRAWING

6,12.24,48 Fiber Optic



1. **LSOH Outer Sheath**
2. **Glass Yarn**
3. **Central Strength Member**
4. **Core Wrapping**
5. **Water Swellable Yarns/Jelly Filling**
6. **Buffer Material (PBT)**
7. **Thixotropic Jelly**
8. **PE Fillers**

OPTICAL FIBER and TUBE COLORS

Tube Color Scheme	
Tube No.	**Color**
1	Blue
2	Orange
3	Green
4	Brown
5	Grey
6	White
7	Red
8	Black
9	Yellow
10	Violet
11	Pink
12	Turquoise
Fiber Color Scheme	
Fiber No.	**Color**
1	Blue
2	Orange
3	Green
4	Brown
5	Grey
6	White
7	Red
8	Black
9	Yellow
10	Violet
11	Pink
12	Turquoise

Notes:

1) *Different color coding available on request.*
2) *Number of tubes per cable and number of fibers per tube depend on cable design.*

TECHNICAL DATA SHEET
SECTION 4
OPTICAL FIBER CORE SPECIFICATIONS
50/125/242 µm Multimode Fiber
Standard ITU-T G.651 (OM3)
(Uncoloured Fibre)

Geometrical Characteristics		
Core diameter	50±2 µm	
Core non-circularity	≤5%	
Core/Cladding concentricity error	≤ 1 µm	
Cladding diameter	125.0 ± 1.0 µm	
Cladding non-circularity	≤ 0.7 %	
Coating/Cladding concentricity error	≤ 6 µm	
Primary coating material - Diameter	UV curable acrylate 242 ± 5 µm (Uncoloured)	
Optical Characteristics		
Attenuation	at 850 nm	≤ 2.2 dB/km
	at 1300 nm	≤ 0.5 dB/km
Overfilled Modal Bandwidth	at 850 nm	≥1500 MHz.km
	at 1300 nm	≥500 MHz.km
Effective Modal Bandwidth	at 850 nm	≥2000 MHz.km
Fiber capacity	at 850 nm; 10Gb/s	≤300 m
Point discontinuity at 850 and at 1300 nm	≤ 0.1 dB	
Numerical Aperture (NA)	0.200 ± 0.015	
Zero dispersion wavelength λ_0	1295 nm ≤λ_0≤ 1340 nm	
Zero dispersion slope, S_0	1295 nm≤λ_0≤1310 nm	≤0.105 ps/nm^2 x km
	1310 nm≤λ_0≤1340 nm	≤0.000375 ps/nm^2 x km
Mechanical Characteristics		
Proof test (off line)	>100 kpsi (0.7 GPa)	
Bending Loss		
• 100 turn on 75 mm diameter 850 nm	≤ 0.5 dB	
• 100 turn on 75 mm diameter 1300 nm	≤ 0.5 dB	
Coating strip force (F)	1.3 N ≤ F ≤ 8.9 N (Peak value)	
	1.0 N ≤ F ≤ 5.0 N (Average value)	
Dynamic tensile strength (0.5 meter gauge length)	>550 kpsi (3.8 GPa)	
Dynamic fatigue (n_d)	Aged 25 (typical value)	
• -60°C ~ +85°C Temperature Cycling	≤ 0.1 dB/km	
• -10°C ~ +85°C/up to 98% RH Dump Heat Cycling	≤ 0.1 dB/km	
• +85°C ± 2°C Dry Heat	≤ 0.1 dB/km	
• +23°C ± 2°C Water Immersion	≤ 0.1 dB/km	
Performance Characteristics		
Group index of refraction typical	1.482@850nm	
	1.477@1300nm	

NOTE: Unless otherwise verified using measurement method according to international standard such like ITU-T G.650