

PHYSICAL DESCRIPTION

- 2-4-6-8-12-16-24 fibers outdoor fiber optic cable,
- Thixotropic jelly filled loose tubes,
- Central loose tube design,
- Swellable glass yarns and swellable aramid yarn as strength member,
- Outer jacket is made of medium density polyethylene,
- Ripcord is inserted for easy jackets removal.

DESCRIPTION	
Fiber Type	SM G652 D, G657 A1, G657 A2, G655, 62.5/125 OM1, 50/125 OM2, 50/125 OM3, 50/125 OM4
Tube Material	PBT (Polybutylene Terephthalate)
Color of Loose Tube	Natural
Color of Fibers in Per Tube	Blue, Orange, Green, Brown, Slate, White, Red, Black, Yellow, Violet, Rose, Aqua, Blue with black tracer, Orange with black tracer, Green with black tracer, Brown with black tracer, Slate with black tracer, White with black tracer, Red with black tracer, Natural, Yellow with black tracer, Violet with black tracer, Rose with black tracer, Aqua with black tracer
Tube Filling Compound	Thixotropic jelly
Strength Elements	Swellable glass yarn and swellable aramid yarn
Ripcord	Polyester cord
Identification Tape Marking	As a customer request
Inner jacket	-
Armor	Corrugated steel tape
Outer Jacket	Black MDPE, thickness nominal 1.5 ± 0.1 mm.
Surface Marking	As a customer request

Fiber Count	Tube Outer/Inner Diameter(mm)	Cable Diameter(mm)	Cable Weight(kg/km)
2	3.0/2.0*	9.0*	65*
4	3.0/2.0*	9.0*	65*
6	3.0/2.0*	9.0*	65*
8	3.0/2.0*	9.0*	65*
12	3.0/2.0*	9.0*	65*
16	3.0/2.0*	9.0*	65*
24	3.0/2.0*	9.0*	65*

*:Tolerance is $\pm 10\%$

Mechanical and Environmental Properties

Physical tests	Value	Standart
Tensile Strength	1900 N (during Installation) 1000 N (during Operation)	IEC 60794-1-E1
Impact Resistance	10J, 3 impacts	IEC 60794-1-E4
Crush Resistance	2000 N/10cm	IEC 60794-1-E3
Bend Radius (during installation)	30x cable diameter	IEC 60794-1-E11
Bend Radius (during Service)	15x cable diameter	IEC 60794-1-E11
Water Penetration	3 m length in 24 hour	IEC 60794-1-2 F5
Operation Temperature	-40 to +70 C	IEC 60794-1-F1
Storage and Transportation Temperature	-40 to +70 C	
Installation Temperature	-30 to +60 C	
Reel Marking	As a customer request	
Metal Plate at drum	As a customer request	

STANDART SM FIBER ITU-T G 652 D

PROPERTIES	SPECIFIED Value
Attenuation (max)	0.40 dB/km (1310 nm) 0.25 dB/km (1550 nm)
MFD	9.2±0.4 μm (1310 nm) 10.4±0.5 μm (1550 nm)
Chromatic Dispersion (max)	3.5 ps/(nm×km)(1310 nm) 18 ps/(nm×km)(1550 nm)
Cladding diameter	125 ± 0.3 μm
Core/Clad Concentricity error	≤ 0.5 μm
Zero dispersion wavelength	1300nm ≤ ≤ 1324nm
Cladding non-circularity	≤ 0.7 %
Coating diameter	245 ± 10 μm
Cut Off Wavelength	≤ 1260nm
Proof Test	≥ 1% (100kpsi or 0.7GPa)

NON-ZERO DISPERSION SHIFTED SM FIBER ITU-T G 655

PROPERTIES	SPECIFIED Value
Attenuation (max)	0.25 dB/km (1550 nm)
MFD	9.6 ± 0.4 μm (1550 nm)
Chromatic Dispersion at 1530-1565 nm	2.0-6.0 ps/(nm×km)nm)
Chromatic Dispersion at 1565-1625 nm	4.0-12.0 ps/(nm×km)
Cladding diameter	125 ± 0.7 μm
Core/Clad Concentricity error (max)	0.6 μm
Cladding non-circularity (max)	% 0.7
Coating diameter	245 ± 5 nm
Cut Off Wavelength	≤ 1450nm
Proof Test	≥ 1% (100kpsi or 0.7GPa)

STANDARD SM FIBER ITU-T G 657 A

PROPERTIES	SPECIFIED Value
Attenuation (max)	0.40 dB/km (1310 nm) 0.25 dB/km (1550 nm)
MFD	9.0 ± 0.4 μm (1310 nm) 10.1 ± 0.5 μm (1550 nm)
Cladding diameter	125 ± 0.7 μm
Core/Clad Concentricity error(max)	0.5 μm
Zero dispersion wavelength	1300nm ≤ ≤ 1324nm
Cladding non-circularity (max)	≤ 0.7 %
Coating diameter	242 ± 7 μm
Cut Off Wavelength	≤ 1260nm
Proof Tensile Test	≥ 1% (100kpsi or 0.7GPa)
Macro bending Attenuation : (10 turn on a 15 mm radius mandrel)	≤ 0.25 dB @1550 nm

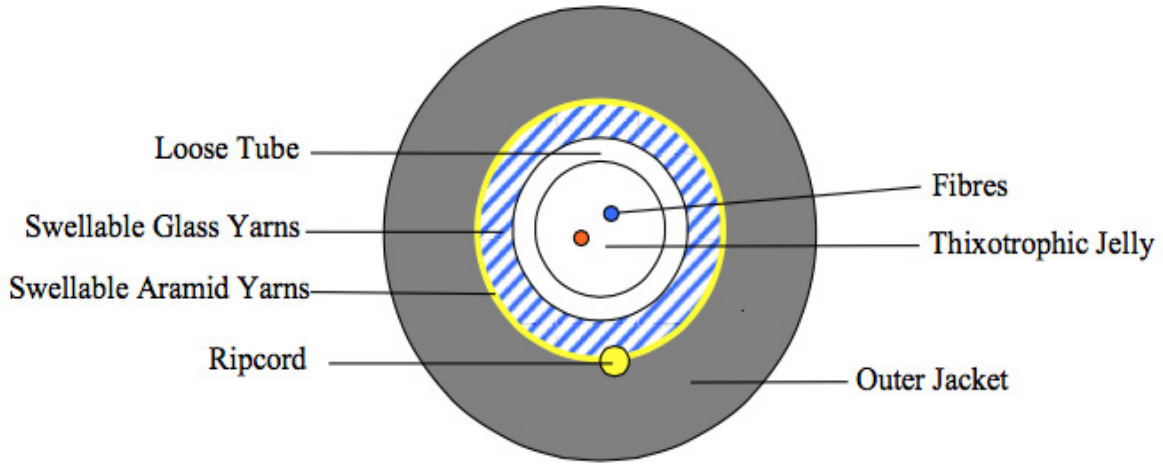
SM FIBER ITU-T G 657 A2 Bend Insensitive

PROPERTIES	SPECIFIED Value
Attenuation (max)	0.35 dB/km (1310 nm) 0.22 dB/km (1550 nm)
MFD	8.6 ± 0.4 μm (1310 nm)
Cladding diameter	125 ± 0.7 μm
Core/Clad Concentricity error (max)	0.5 μm
Zero dispersion wavelength	1302nm ≤ ≤ 1322nm
Cladding non-circularity (max)	% 1
Coating diameter	240 ± 5 μm
Cut Off Wavelength	≤ 1260nm
Proof Tensile Test	≥ 1% (100kpsi or 0.7GPa)
Macro bending Attenuation : (1 turn on a 7.5 mm radius mandrel)	≤ 0.5 dB @1550 nm

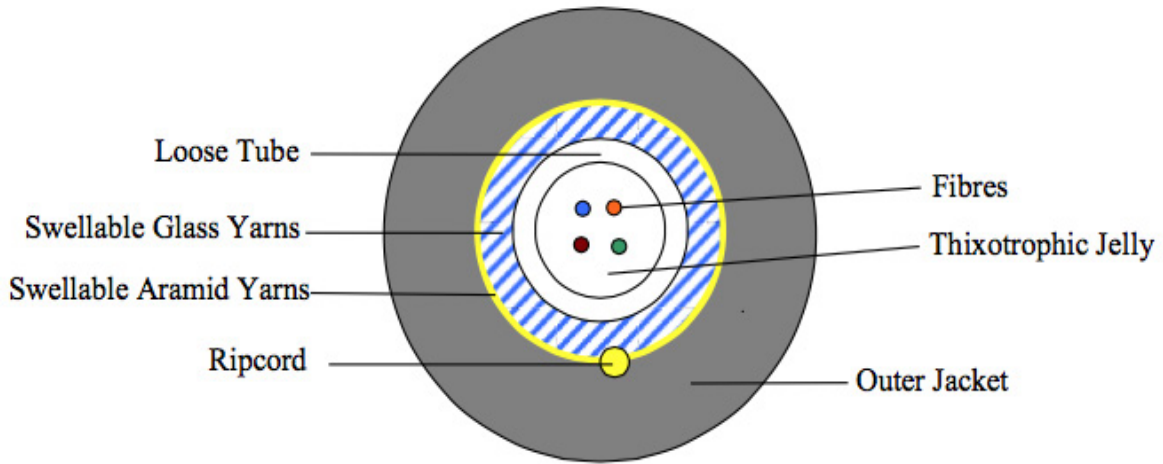
62.5/125 μm MM OM1 OPTICAL FIBER

PROPERTIES	SPECIFIED Value
Attenuation (max)	3.5 dB/km (850 nm) 1.5 dB/km (1300 nm)
Bandwidth (min)	200 MHz.km(850 nm) 600 MHz.km(1300 nm)
Numerical Aparature	0.275±0.015
Core Diameter	62.5 ± 2 μm
Cladding Diameter	125 ± 1 μm
Core/Clad Concentricity error	≤ 1 μm
Cladding non-circularity	≤ 0.7 %
Coating Diameter	242 ± 5 μm
Proof Test	≥ 100kpsi or 0.7GPa

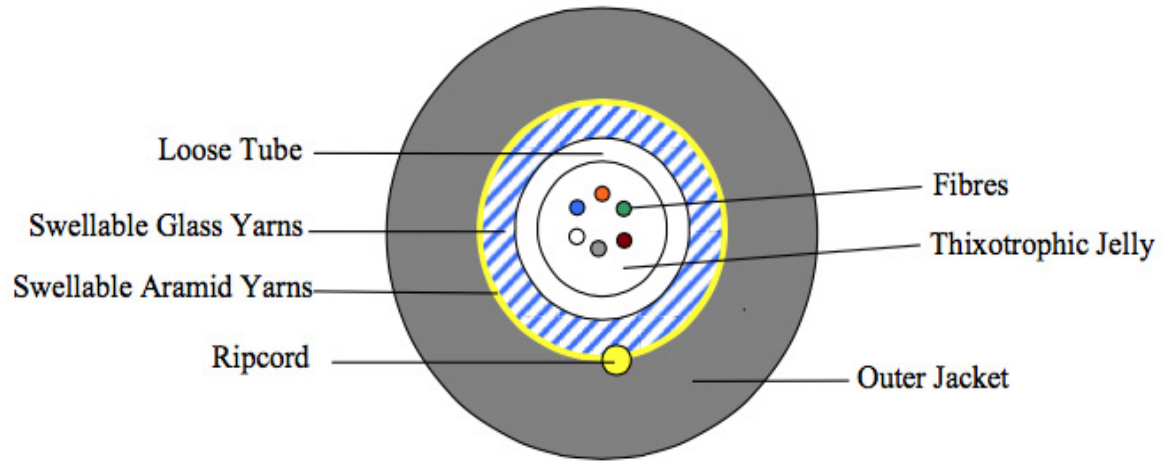
2 fibers Cable Cross Section



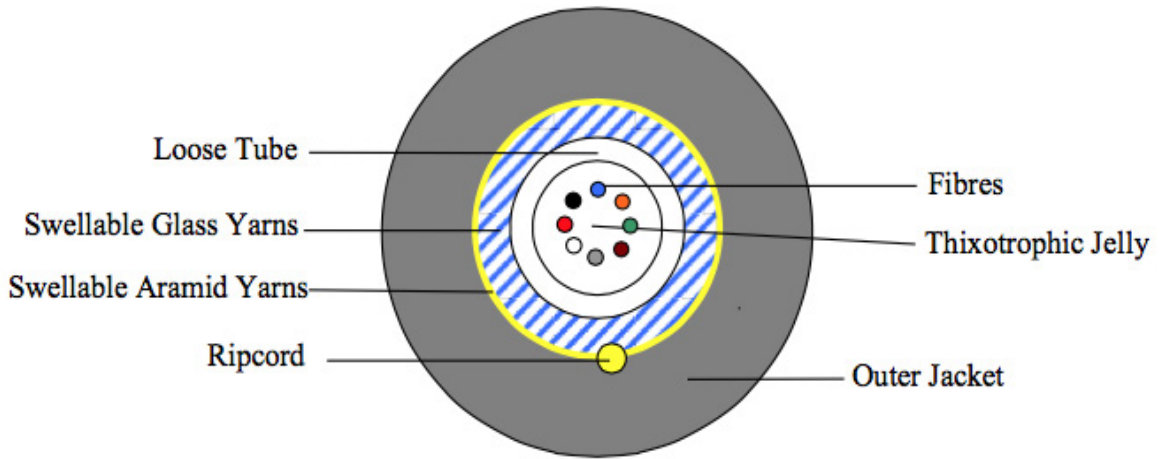
4 fibers Cable Cross Section



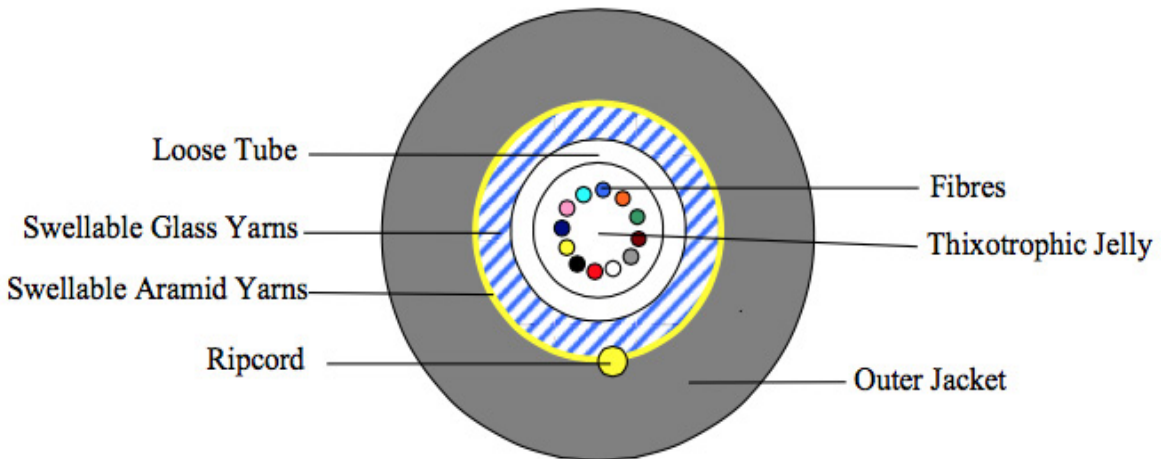
6 fibers Cable Cross Section



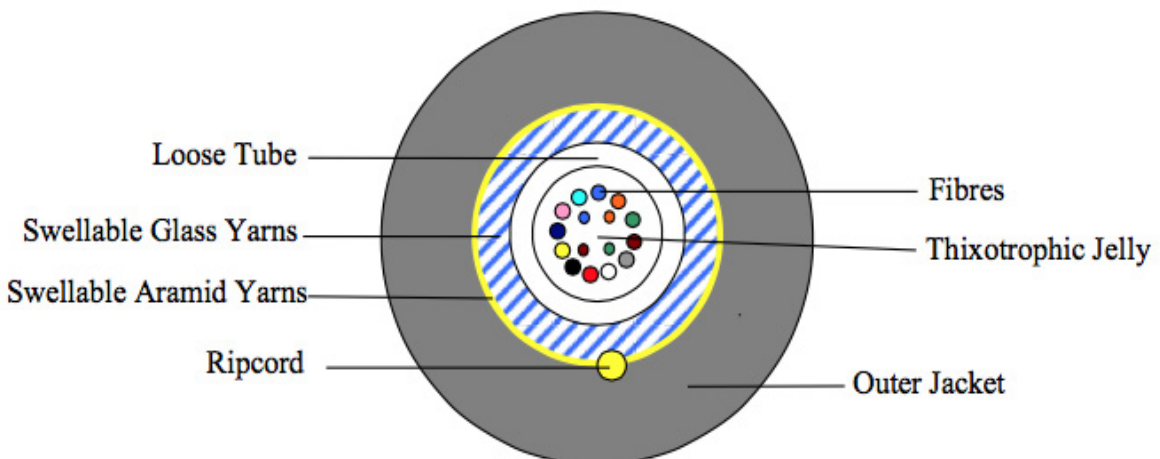
8 fibers Cable Cross Section



12 fibers Cable Cross Section



16 fibers Cable Cross Section



24 fibers Cable Cross Section

