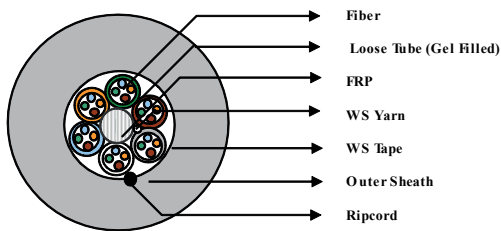
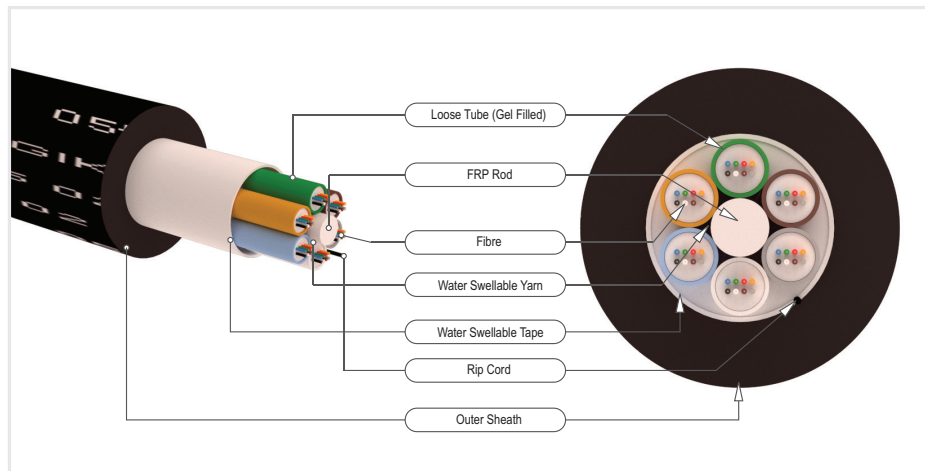
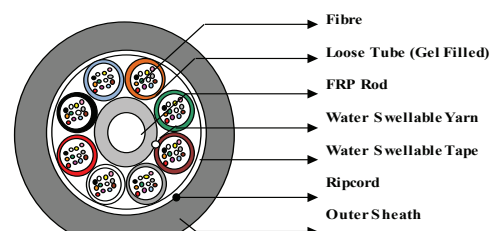


### Single Mode Multitube Unarmoured Fiber Optic Cable – 24F, 48F, 96F, 144F, 288F Cables

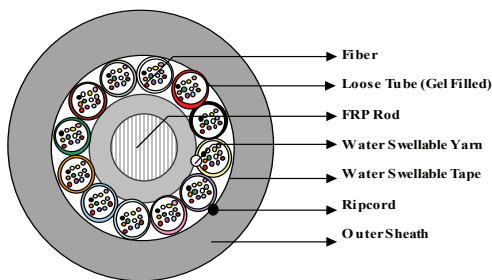
Techlogiks loose tube cables are the product of choice as the backbone in Indoor/Outdoor environments. The loose tube design offers reliable transmission performance over a broad temperature range. Optical Fibers are placed inside filled buffer tubes containing gel. The core is constructed by stranding the buffer tubes around a central member. Glass Yarns and a black outer jacket are applied. Rip cords are included under outer jacket for ease of entry.



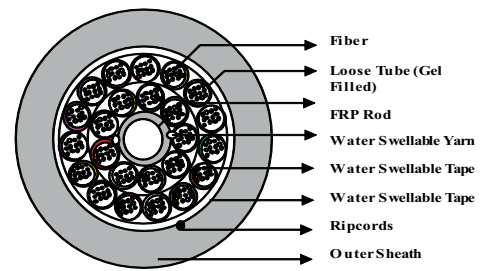
**24F Cable**



**96F Cable**



**144F Cable**



**288F Cable**

**Standards Compliance :**

*Telecordia GR-20, IEC 60794, EIA/TIA, ITU-T, EN187000, RUS1755.900*

**Applications :**

*Indoor and Outdoor, Trunk, distribution and feeder cable, Local loop, metro, long-haul and broadband network*

**Advantages:**

*High fiber density, Multiple network applications, Reduces cable prep and installation time, Reduces cost, Installation of more fibers in less space.*

UNARMoured FIBER CABLE

Cable Construction Details														
Parameter	Dimensions	Type, Color												
288F														
Number of Fiber per tube	12	Color	Bl	Or	Gr	Br	Sl	Wh	Rd	Bk	Yi	Vi	Pi	Ag
Number of Loose Tubes	9 (Layer I)	Color	Bl	Or	Gr	Br	Sl	Wh	Rd	Bk	Yi			
	15 (Layer II)	Color	Bl	Or	Gr	Br	Sl	Wh	Rd	Bk	Yi	Vi	Pi	Ag
144F														
Number of Fiber per tube	12	Color	Bl	Or	Gr	Br	Sl	Wh	Rd	Bk	Yi	Vi	Pi	Ag
Number of Loose Tubes	12	Color	Bl	Or	Gr	Br	Sl	Wh	Rd	Bk	Yi	Vi	Pi	Ag
96F														
Number of Fiber per tube	12	Color	Bl	Or	Gr	Br	Sl	Wh	Rd	Bk	Yi	Vi	Pi	Ag
Number of Loose Tubes	8	Color	Bl	Or	Gr	Br	Sl	Wh	Rd	Bk				
48F														
Number of Fiber per tube	8	Color	Bl	Or	Gr	Br	Sl	Wh	Rd	Bk				
Number of Loose Tubes	6	Color	Bl	Or	Gr	Br	Sl	Wh						
24F														
Number of Fiber per tube	4	Color	Bl	Or	Gr	Br								
Number of Loose Tubes	6	Color	Bl	Or	Gr	Br	Sl	Wh						
Moisture Barrier	Water Swellable Yarn & Water Swellable Tape													
	288F	144F	96F	48F	24F									
Loose Tube ID/OD - PBT	1.6/2.2+ 0.1 mm	1.6/2.2 ± 0.1 mm	1.6/2.2 ± 0.1 mm	1.5/2.2 ± 0.1 mm	1.2/1.9 ± 0.1 mm									
Central Strength Member - FRP Rod	3.0 ± 0.1 mm	3.5 ± 0.1 mm	2.5 ± 0.1 mm	2.3 ± 0.1 mm	2.0 ± 0.1 mm									
Outer Sheath - LSOH Black	1.5 mm (Nominal)	1.5 mm (Nominal)	1.5 mm (Nominal)	1.5 mm (Nominal)	1.5 mm (Nominal)									
Number of Ripcords - Polyester	1	1	1	1	1									
Overall Cable Diameter	16.5 ± 1 mm	14.0 ± 0.5 mm	11.0 ± 0.5 mm	10.0 ± 0.5 mm	9.0 ± 0.5 mm									
Cable Weight	240 ± 25 kg/km	190.0 ± 20 kg/km	125.0 ± 10 kg/km	100.0 ± 10 kg/km	85.0 ± 10 kg/km									

Cable Mechanical Characteristics					
Tensile Cable	288F	144F	96F	48F	24F
Tensile Strength	4000 N	3000 N	2000 N	1500 N	1000 N
Crush Resistance	2000 N	2000 N	2000 N	2000 N	2000 N
Impact Strength	15 N.m	15 N.m	15 N.m	10 N.m	10 N.m
Torsion	± 360 °	± 360 °	± 360 °	± 180 °	± 180 °
Minimum Bend Radius	20 x D	20 * D	20 x D	20 x D	20 x D

UNARMoured FIBER CABLE

### Optical Fibre Characteristics

Fibre Type	G.652D (OS2)	
Attenuation	at 1310 nm	≤ 0.36 dB/km
	at 1550 nm	≤ 0.23 dB/km
Chromatic Dispersion	1285 - 1330 nm	≤ 3.5 ps/nm.km
	1550 nm	≤ 18 ps/nm.km
Zero Dispersion Wavelength		1300 - 1324 nm
Zero Dispersion Slope		≤ 0.092 ps/nm <sup>2</sup> .km
Polarisation Mode Dispersion		≤ 0.2 ps/√km
Cut-off Wavelength	λ <sub>cc</sub>	≤ 1260 nm
Mode Field Diameter	at 1310 nm	9.3 ± 0.5 μm
Core Cladding Concentricity Error		≤ 0.8 μm
Cladding Diameter		125 ± 1 μm
Cladding Non-circularity		≤ 1 %
Coating Diameter		245 ± 10 μm

### Temperature Performance

Installation	-20 °C to + 70 °C
Operation	-20 °C to + 70 °C
Storage	-20 °C to + 70 °C

### ORDERING INFORMATION

PART NUMBER	DESCRIPTION
TL-24F-09-UA	24 Fiber SM OS2 Ind/Out Unarmored Jelly Filled Loose Tube FOC LSZH
TL-48F-09-UA	48 Fiber SM OS2 Ind/Out Unarmored Jelly Filled Loose Tube FOC LSZH
TL-96F-09-UA	96 Fiber SM OS2 Ind/Out Unarmored Jelly Filled Loose Tube FOC LSZH
TL-144F-09-UA	144 Fiber SM OS2 Ind/Out Unarmored Jelly Filled Loose Tube FOC LSZH
TL-288F-09-UA	288 Fiber SM OS2 Ind/Out Unarmored Jelly Filled Loose Tube FOC LSZH