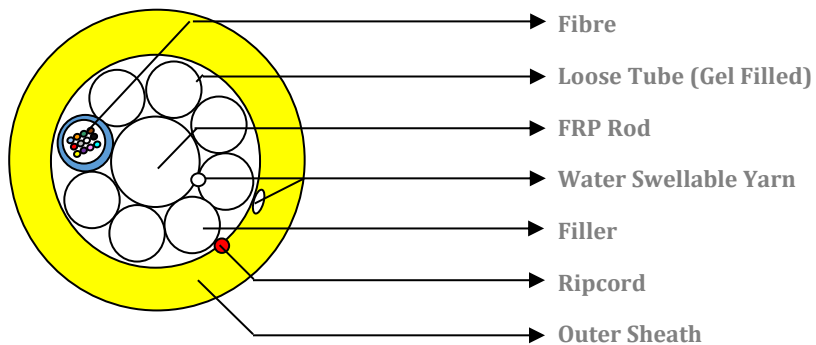


**Technical Specifications**  
**12/24/48/96F Micro Optical Fibre Cable**



**Product Details**

Optical Fibre containing elements laid up around central strength member
Gel Filled Water blocked loose tubes
Water blocked core interstices
LSZH sheath as external protection

**Cable Construction**

Parameter	Structure/Layout/Material			
	12F	24F	48F	96F
Fibre Count	12F	24F	48F	96F
Number of fibres per tube	12			
Number of loose tubes - PBT	1	2	4	8
Number of Fillers - HDPE Natural	7	6	4	0
Central Strength Member	FRP Rod			
Moisture Barrier	Water Swellable Yarn - (FRP+Core)			
Outer Sheath	LSZH - Yellow - UV Proof			
Ripcords	1 - Polyester			
Cable Diameter	7.1 ± 0.3 mm			
Cable Weight	60 kg/km ± 10 %			

## Colour Coding

Fibre Colour EIA/TIA - 598	Bl	Or	Gr	Br	Sl	Wh	Rd	Bk	Yl	Vi	Pk	Aq
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Loose Tube Colour EIA/TIA - 598	Bl	Or	Gr	Br	Sl	Wh	Rd	Bk
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## Cable & Fibre Characteristics

Tensile Strength	1500 N		IEC-60794-1-21-E1
Crush Resistance	500 N/100 mm		IEC-60794-1-21-E3
Impact Strength	2 Nm		IEC-60794-1-21-E4
Torsion	± 180 °		IEC-60794-1-21-E7
Minimum Bend Radius	Installation: 20 x D Operation: 10 x D		IEC-60794-1-21-E11
Kink	10 x D		IEC-60794-1-21-E10
Water Penetration Test	1 m water head, 3 m sample, 24 hours		IEC-60794-1-22-F5
Environmental Performance (Max. change in attenuation shall be $\leq$ 0.15 dB/km)	Installation	- 10 °C to + 70 °C	IEC-60794-1-22-F1
	Operation	- 40 °C to + 60 °C	
	Storage	- 40 °C to + 70 °C	

Single Mode Fibre	G.652D	
Attenuation	1310 nm	≤ 0.35 dB/km
	1550 nm	≤ 0.23 dB/km
Chromatic Dispersion	1285 - 1330 nm	≤ 3.5 ps/nm.km
	1270 - 1340 nm	≤ 5.3 ps/nm.km
	1550 nm	≤ 18 ps/nm.km
PMD (Max. Individual)	≤ 0.2 ps/√km	
PMD (Link design value)	≤ 0.1 ps /√km	
Zero Dispersion Wavelength	1300 - 1324 nm	
Zero Dispersion Slope	≤ 0.092 ps/nm <sup>2</sup> .km	
Cable cut off wavelength $\lambda_{cc}$	≤ 1260 nm	
MFD	1310 nm	9.2 ± 0.4 μm
	1550 nm	10.4 ± 0.5 μm
Core-Cladding Concentricity Error	≤ 0.6 μm	
Cladding Diameter	125 ± 0.7 μm	
Cladding Non Circularity	≤ 0.7 %	
Primary Coating Diameter	242 ± 5 μm (Uncoloured)	

Cable Marking

HFCL Ltd 12/24/48/96F LT SM G.652D MICROCABLE *Year of manufacture Length Code Meter Marking Or As per customer requirement.*

Cable Length

4 km ± 5 %

Packaging

Wooden drums or reels

Cable end sealed

*Drum marking: Drum number, User name, HFCL Limited, Fibre count, Cable Length, Date of manufacture, Net weight, Gross weight*

Cable Performance Standards

IEC 60793, ANSI/ICEA S-87-640, Telcordia GR-20, ITU-T, RoHS, REACH