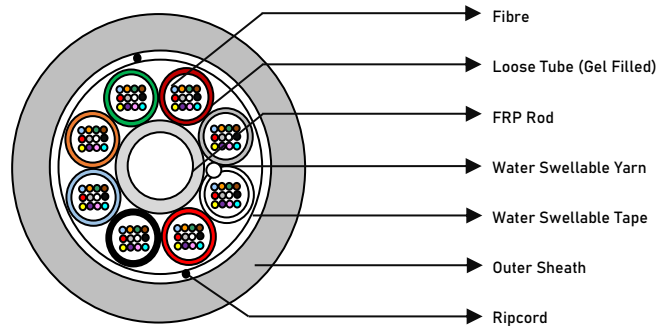


## Technical Specifications Duct Optical Fibre Cable

96F cable shown



Product  
Details

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

Cable Construction

Parameter	Structure/Layout/Material			
	12 / 48 / 72F	96F	144F	288F
Fibre Count	12 / 48 / 72F	96F	144F	288F
Number of fibres per tube	12			
Number of loose tubes - PBT	1 / 4 / 6	8	12	Layer I: 9 Layer II: 15
Number of fillers - HDPE - Black	5 / 2 / 0	0		
Central Strength Member - FRP Rod	2.1 ± 0.1 mm	2.5 mm up coated	3.5 mm up coated	2.5 mm up coated
Moisture Barrier	Water Swellable Tape & Water Swellable Yarn			
Outer Sheath	1.1 mm (nominal) HDPE - Black - Anti Rodent			
Ripcords - Polyester	2			
Cable Diameter	8.5 ± 0.5 mm	10.0 ± 0.5 mm	13.0 ± 0.5 mm	15.0 ± 0.5 mm
Cable Weight	55 ± 10 kg/km	80 ± 10 kg/km	130 ± 15 kg/km	170 ± 15 kg/km

## Colour Coding

Fibre Colour EIA/TIA - 598	Bl	Or	Gr	Br	Sl	Wh	Rd	Bk	Yl	Vi	Pk	Aq
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Tube Colour EIA/TIA - 598 Layer I	Bl	Or	Gr	Br	Sl	Wh	Rd	Bk	Yl			
Layer II	Bl	Or	Gr	Br	Sl	Wh	Rd	Bk	Yl	Vi	Pk	Aq
Layer II	Bl#	Or#	Gr#									

# denotes single black stripe marking via inkjet printing

## Cable & Fibre Characteristics

Tensile Strength	2000 N		IEC-60794-1-21-E1
Crush Resistance	2000 N		IEC-60794-1-21-E3
Impact Strength	10 N.m		IEC-60794-1-21-E4
Torsion	± 360 °		IEC-60794-1-21-E7
Minimum Bend Radius	20 x D		IEC-60794-1-21-E11
Kink	15 x D		IEC-60794-1-21-E10
Water Penetration Test	1 m water head, 3m sample, 24 hours		IEC-60794-1-21-F5
Environmental Performance	Installation	- 10 °C to + 85 °C	IEC-60794-1-22-F1
	Operation	- 10 °C to + 85 °C	
	Storage	- 10 °C to + 85 °C	

Fibre Type	G.652D	
Attenuation	1310 nm	≤ 0.36 dB/km
	1550 nm	≤ 0.23 dB/km
Chromatic Dispersion	1285-1330 nm	≤ 3.5 ps/nm.km
	1550 nm	≤ 18 ps/nm.km
PMD (Max. Individual)	≤ 0.2 ps/√km	
PMD (Link design value)	≤ 0.06 ps/√km	
Cable cut off wavelength λ <sub>cc</sub>	≤ 1260 nm	
MFD	1310 nm	9.2 ± 0.4 μm
	1550 nm	10.4 ± 0.5 μm
Core-Cladding Concentricity Error	≤ 0.5 μm	
Cladding Diameter	125 ± 0.7 μm	
Cladding Non Circularity	≤ 0.7 %	
Primary Coating Diameter (Uncoloured)	242 ± 5 μm	

Cable Marking

HFCL Ltd 12/48/72/96/144/288F LT SM G.652D DUCT OFC *Month & Year of manufacture Length Meter Marking Or As per customer requirement.*

Cable Length

4.0 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