

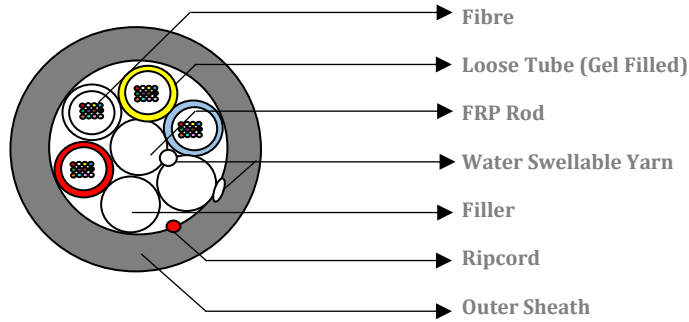


HFCL Limited

(FORMERLY - HIMACHAL FUTURISTIC COMMUNICATIONS LIMITED) - GOA

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Technical Specifications 48F Multitube Micro OFC



Product
Details

Optical Fibre containing elements laid up around central strength member
Water blocked loose tubes
Water blocked core interstices
Polyethylene sheath as outer protection

Cable Construction

Parameter	Structure/Layout/Material
Fibre Count	48F
Number of fibres per tube	12
Number of loose tubes	4
Loose Tube OD	1.5 ± 0.1 mm
Number of Fillers - HDPE - Natural	2
Central Strength Member	FRP Rod
Moisture Barrier	Water Swellable Yarn
Outer Sheath	0.5 mm (nom.) - HDPE - Black - UV Resistant
Number of Ripcords	1 - Polyester
Cable Diameter	5.7 ± 0.3 mm
Cable Weight	28 kg/km ± 10 %

Colour Coding

Fibre Colour	Rd	Wh	Yl	Bl	Gr	Vi	Br	Bk	Or	Aq	Pk	Sl
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Tube Colour	Rd	Wh	Yl	Bl
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Cable & Fibre Characteristics

Tensile Strength	500 N		IEC-60794-1-21-E1
Crush Resistance	500 N/100 mm		IEC-60794-1-21-E3
Impact Strength	2 N.m		IEC-60794-1-21-E4
Torsion	± 180 °		IEC-60794-1-21-E7
Minimum Bend Radius	During Installation : 20 x OD After Installation : 15 x OD		IEC-60794-1-21-E11
Drip Test	30 cm, 70 °C , 24 hours		IEC-60794-1-21-E14
Water Penetration Test	1 m water head, 3m sample, 24 hours		IEC-60794-1-22-F5
Environmental Performance	Installation	-20 °C to + 60 °C	IEC-60794-1-22-F1
	Operation	-30 °C to + 70 °C	
	Storage	-40 °C to + 70 °C	

Note: All tests shall be carried out as per IEC standards. Change in attenuation after and before testing shall be ≤ 0.1 dB/km.

Fibre Type	G.657A1			
Attenuation	1310 nm	≤ 0.35 dB/km		
	1550 nm	≤ 0.23 dB/km		
Chromatic Dispersion	1285-1330 nm	≤ 3.5 ps/nm.km		
	1550 nm	≤ 18 ps/nm.km		
	1625 nm	≤ 22 ps/nm.km		
PMD (Max. Individual)	≤ 0.2 ps/√km			
PMD (Link design value)	≤ 0.1 ps / √km			
Cable cut off wavelength λ _{cc}	≤ 1260 nm			
MFD	1310 nm	9.1 ± 0.3 μm		
	1550 nm	10.3 ± 0.5 μm		
Bending Induced Attenuation	1 Turn	φ 20	1550 nm	≤ 0.75 dB
			1625 nm	≤ 1.5 dB
	10 Turn	φ 30	1550 nm	≤ 0.25 dB
			1625 nm	≤ 1.0 dB
Core-Cladding Concentricity Error	≤ 0.5 μm			
Cladding Diameter	125 ± 0.7 μm			
Cladding Non Circularity	≤ 0.8 %			
Primary Coating Diameter (Uncoloured)	242 ± 5 μm			

Cable Marking

As per customer requirement.

Cable Length

6 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.