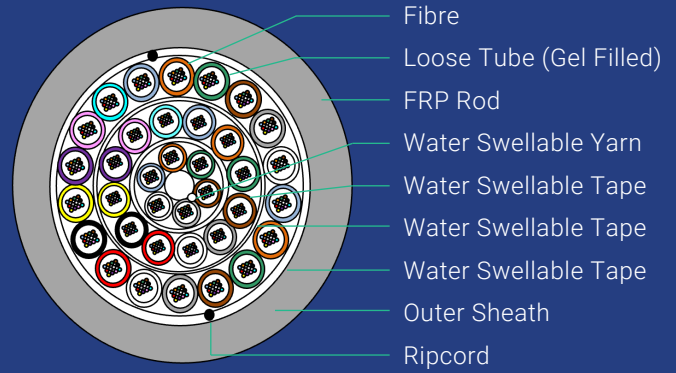


Technical Specifications

432F Duct 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
- ✓ HDPE sheath as external protection



Cable Construction

Parameter	Structure/Layout/Material	
Fibre Count	432	
Number of fibres per tube	12	24
Number of loose tubes	Layer I: 6 Layer II: 12 Layer III: 18	Layer I: 6 Layer II: 12
Central Strength Member – FRP Rod	2.1 ± 0.1 mm	2.7 ± 0.1 mm
Moisture Barrier	Water Swellable Tape & Water Swellable Yarn	
Outer Sheath	1.1 mm (nominal) HDPE – Black	
Ripcords - Polyester	2	
Cable Diameter	18.0 ± 1.0 mm	16.0 ± 1.0 mm
Cable Weight	225 ± 20 kg/km	185 ± 30 kg/km

Colour Coding

Fibre Colour EIA/TIA – 598												
	Bl	Or	Gr	Br	Sl	Wh	Rd	Bk	Yl	Vi	Pk	Aq
Loose Tube Colour EIA/TIA – 598 1-12												
	Bl	Or	Gr	Br	Sl	Wh	Rd	Bk	Yl	Vi	Pk	Aq
Loose Tube Colour EIA/TIA – 598												
	Bl	Or	Gr									

Tubes 13 to 15 are a repeat of the above colours but with the addition of stripe marking.

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	

Single Mode Fibre	G.657A1	
Attenuation	1260 nm	≤ 0.42 dB/km
	1270 nm	≤ 0.40 dB/km
	1310 nm	≤ 0.35 dB/km
	1383 nm	≤ 0.35 dB/km
	1490 nm	≤ 0.24 dB/km
	1550 nm	≤ 0.21 dB/km
	1625 nm	≤ 0.24 dB/km
Chromatic Dispersion	1290 – 1340 nm	≤ 3.0 ps/nm.km
	1260-1360nm	≤ 7.0.0 ps/nm.km
	1480 – 1580 nm	≤ 20.0 ps/nm.km
	1625 nm	≤ 22.0 ps/nm.km
PMD (Max. Individual)	≤ 0.2 ps/√km	
PMD (Link design value)	≤ 0.08 ps / km	
Cable cut off wavelength λ _{cc}	≤ 1260 nm	
MFD	1310 nm	9.2 ± 0.4 μm
Core-Cladding Concentricity Error	≤ 0.5 μm	
Cladding Diameter	125 ± 0.7 μm	
Cladding Non Circularity	≤ 1 %	
Primary Coating Diameter	250 ± 15 μm (Coloured)	

Cable Marking

HFCL Ltd 432 LT SM G.657A1 DUCT OFC Month & Year of manufacture Length Meter Marking

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