

# Technical Data Sheet

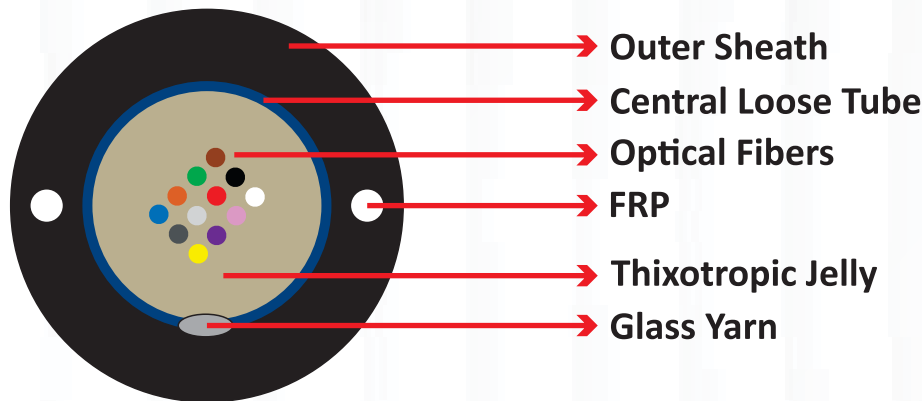
UNITUBE SM 2F, 4F, 6F, 12F G.652D  
Un-Armoured OPTICAL FIBRE CABLE

# GOLD SERIES

Date: 24.04.2023

Construction Details	
No of Fiber and Color	: 02F per Tube - Blue, Natural.
	: 04F per Tube - Blue, Orange, Green and Natural.
	: 06F per Tube - Blue, Orange, Green, Brown, Gray and Natural.
	: 12F per Tube - Blue, Orange, Green, Brown, Gray, White, Red, Black, Yellow, Violet, Pink and Natural.
FRP	: UV-Cured Coated FRP
Loose Tube	: PBT Loose Tube Filled With Thixotropic Jelly
HDPE Coating	: Super / Super Double Coating
Yarn Count	: 1200 TEX
No of Loose Tube	: 1 Loose Tube
Tube Identification	: Natural
Strength Member	: 2/3 Nos. (0.8mm / 1mm) - FRP Embedded in Sheath
Outer Jacket	: PE Black Color

### Schematic Diagram Not to Scale



### Fibre Characteristics (As per ITU-T Rec. G. 652 D)

Attenuation (Transmission Characteristics)		Geometrical Characteristics	
@ 1310 nm	: ≤ 0.4 (dB/Km)	Mode Field Diameter @ 1310 nm	: 9.2 ± 0.4 μm
@ 1550 nm	: ≤ 0.2 (dB/Km)	Mode Field Diameter @ 1550 nm	: 10.3 ± 0.5 μm
		Cladding Diameter	: 125 ± 1 μm
		Cladding Non Circularity	: ≤ 1%
		Core Clad Concentricity Error	: ≤ 0.5 μm
		Coating Diameter(Uncolored)	: 245 ± 10 μm
		Coating/Cladding Concentricity	: ≤ 12 μm
<b>Dispersion</b>		<b>Cut Off Wavelength</b>	
<b>A. Total Dispersion (Chromatic Dispersion)</b>		Fiber Cut Off Wavelength	: ≤ 1320 nm
1285-1330nm	: ≤ 3.5 ps/nm.km	Cable Cut Off Wavelength	: ≤ 1260 nm
1270-1340nm	: ≤ 5.3 ps/nm.km	<b>Mechanical &amp; Operating Characteristics</b>	
1550nm	: ≤ 18 ps/nm.km	Operating Temperature	: -20° C to +70° C
1625nm	: ≤ 22.0 ps/nm.km	Fibre Proof Test	: 1%
<b>B. Polarization Mode Dispersion at 1310 &amp; 1550 nm</b>		Stripability Force	: 1.3 < F < 8.9 N
At Fibre Stage	: ≤ 0.2 ps/sqrt.km	Fibre Curl	: 4 meter radius of curvature
At Cable Stage	: ≤ 0.3 ps/sqrt.km		
<b>C. Dispersion Slope &amp; Wave Length</b>			
Zero Dispersion Wavelength	: 1300-1324 nm		
Zero Dispersion Slope	: ≤ 0.092 ps/nm <sup>2</sup> .km		

### Cable Mechanical & Physical Characteristics

Cable Mechanical Characteristics		Cable Physical Characteristics	
Max. Tensile Strength	: 350 N (Short Term)	Cable Diameter	: 5.8mm / 6mm / 6.5mm / 7mm
Crush Resistance	: 1000 N/10 CM (Short Term)	Nominal Cable Weight	: Approx. 28 kg/km
Impact Resistance	: 10 N 0.5 m	Packing Length	: 1/2 km ± 5%
Min. Bending Radius (Long Term)	: 20D (D= Cable Diameter mm)	Packing Details	: Coil Form

**All Tests Shall be Carried out as per IEC Standards. Change in attenuation Shall be ≤0.05 dB/km**

**Cable Printing Details:**  
(Hot Foil White Emb.)

OFC wwY OPTRONIX GOLD xxF DC CFRP YW12 UT SM G652D Month YYYY Length Code Meter Marking  
Note: ww will be replaced with outer diameter of 58, 60, 65, 70.  
xx will be replaced with Fiber Count 02, 04, 06, 12.