

Technical Data Sheet

UNITUBE SM 2F, 4F, 6F, 12F G.652D

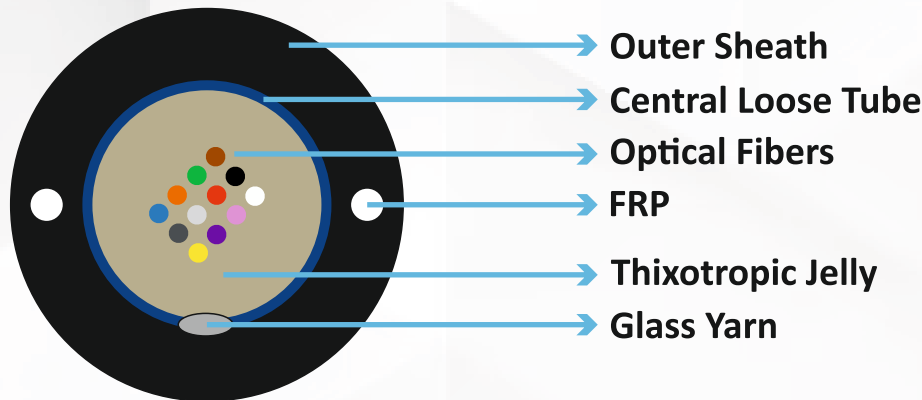
Un-Armoured OPTICAL FIBRE CABLE

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	: Virgin HDPE
Lining Option	: (i) L1 Black Line on Orange Cable (ii) L2 Orange Line on Black Cable
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/Orange 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	: $9.2 \pm 0.4 \mu\text{m}$
@ 1550 nm	: ≤ 0.2 (dB/Km)	Mode Field Diameter @ 1550 nm	: $10.3 \pm 0.5 \mu\text{m}$
		Cladding Diameter	: $125 \pm 1 \mu\text{m}$
Dispersion		Cladding Non Circularity	: $\leq 1\%$
A. Total Dispersion (Chromatic Dispersion)		Core Clad Concentricity Error	: $\leq 0.5 \mu\text{m}$
1285-1330nm	: ≤ 3.5 ps/nm.km	Coating Diameter(Uncolored)	: $245 \pm 10 \mu\text{m}$
1270-1340nm	: ≤ 5.3 ps/nm.km	Coating/Cladding Concentricity	: $\leq 12 \mu\text{m}$
1550nm	: ≤ 18 ps/nm.km	Cut Off Wavelength	
1625nm	: ≤ 22.0 ps/nm.km	Fiber Cut Off Wavelength	: ≤ 1320 nm
B. Polarization Mode Dispersion at 1310 & 1550 nm		Cable Cut Off Wavelength	: ≤ 1260 nm
At Fibre Stage	: ≤ 0.2 ps/sqrt.km	Mechanical & Operating Characteristics	
At Cable Stage	: ≤ 0.3 ps/sqrt.km	Operating Temperature	: -20°C to $+70^\circ\text{C}$
C. Dispersion Slope & Wave Length		Fibre Proof Test	: 1%
Zero Dispersion Wavelength	: 1300-1324 nm	Stripability Force	: $1.3 < F < 8.9$ N
Zero Dispersion Slope	: ≤ 0.092 ps/nm ² .km	Fibre Curl	: 4 meter radius of curvature

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 $\pm 5\%$
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 PLATINUM 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.