

## 1. Physical Characteristics:

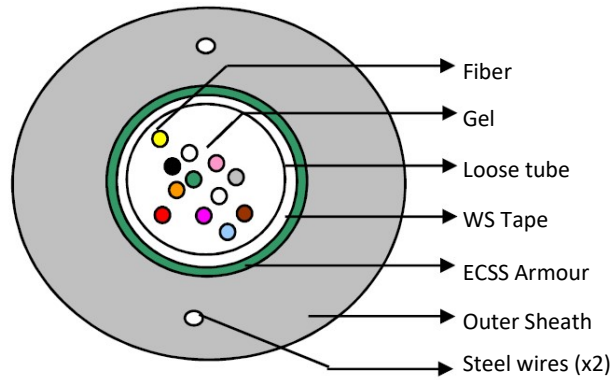


Fig. 1.1

Table 1.1 Construction details


Parameter	Dimension	Type, Colour
Number of fiber per tube	12	Colour: Blue ,Orange, Green, Brown, Slate, White, Red, Black, Yellow, Violet, Pink, Aqua 
Number of loose tubes	1	Colour Nt
Loose tube Inner Diameter	1.7 ± 0.1 mm	PBT
Loose tube Outer Diameter	2.5 ± 0.1 mm	
Peripheral Strength member	1.0 ± 0.05 mm	Steel wires - 2 nos.
Moisture Barrier	-	Water Swellable Tape
Armour	0.150 mm	ECCS Tape
Outer Sheath	1.8 mm (Nominal)	HDPE - Black
Overall Cable diameter	8.5 ± 0.5 mm	
Cable weight	75.0 ± 10 kg/km	

Table 1.2 Cable Mechanical Characteristics:

Parameter	Dimension
Tensile Strength	1000 N
Crush Resistance	2000 N
Impact Strength	10Nm
Torsion	± 180°
Minimum bend radius	20 x D, D= Diameter of cable

Table 1.3 Temperature Performance:

Parameter	Dimension
Installation	- 20 °C to + 70 °C
Operation	- 20 °C to + 70 °C
Storage	- 20 °C to + 70 °C

## 2. Optical Fiber Characteristics:

Fibre Type	G.652D (OS2)		50 μm (OM3)		50 μm (OM4)	
Attenuation	at 1310 nm	≤ 0.36 dB/km	at 850 nm	≤ 3.0 dB/km	at 850 nm	≤ 3.0 dB/km
	at 1550 nm	≤ 0.23 dB/km	at 1300 nm	≤ 1.0 dB/km	at 1300 nm	≤ 1.0 dB/km
Chromatic Dispersion	1285 - 1330 nm	≤ 3.5 ps/nm.km Minimum	850 nm	≥ 1500 MHz.km	850 nm	≥ 3000 MHz.km
	1550 nm	≤ 18 ps/nm.km	1300 nm	≥ 500 MHz.km	1300 nm	≥ 500 MHz.km
Zero Dispersion Wavelength		1300 - 1324 nm				
Zero Dispersion Slope		≤ 0.092 ps/nm <sup>2</sup> .km				
Polarisation Mode Dispersion		≤ 0.20 ps/√km				
Cable Cut-off Wavelength		≤ 1260 nm				
Mode Field Diameter	at 1310 nm	9.2 ± 0.4 μm				
			Core Diameter	50 ± 2.5 μm	Core Diameter	50 ± 2.5 μm
Mode field Concentricity Error		≤ 0.8 μm	Core Cladding Concentricity Error	≤ 1 μm	Core Cladding Concentricity Error	≤ 1 μm
Cladding Diameter		125 ± 1 μm		125 ± 1 μm		125 ± 1 μm
Cladding Non-circularity		≤ 1 %		≤ 1 %		≤ 1 %
Coating Diameter	Uncoloured	245 ± 10 μm	Coloured	250 ± 15 μm	Coloured	250 ± 15 μm

Fibre Type	62.5 μm (OM1)	
Attenuation	at 850 nm	≤ 3.0 dB/km
	at 1300 nm	≤ 1.0 dB/km
Chromatic Dispersion	850 nm	≥ 200 MHz.km
	1300 nm	≥ 600 MHz.km
Core Diameter		62.5 ± 2.5 μm
Core Cladding Concentricity Error		≤ 1 μm
Cladding Diameter		125 ± 1 μm
Cladding Non-circularity		≤ 1 %
Coating Diameter	Coloured	250 ± 15 μm

## 3. Packaging:

Packing	Wooden drum reel
Default Cable length in drum	2000m +10%

## 4. Cable Printing details:

CISNET FO OUTDOOR CABLE <fiber count> <fiber type> <cable type> <cable PN> <month/year> <batch number> XXXXX METER

CIS Cable PN	Fiber Count	Fiber Type	Cable type	Packaging Length
CNOFCSM12FUTJFSSARM	12	SM G.652D (OS2)	UNITUBE ECSS ARMoured HDPE	2000m +10%
CNOFCM312FUTJFSSARM	12	MM 50/125 (OM3)	UNITUBE ECSS ARMoured HDPE	2000m +10%
CNOFCM412FUTJFSSARM	12	MM 50/125 (OM4)	UNITUBE ECSS ARMoured HDPE	2000m +10%

For Outer Sheath Properties add '-X' to CISNET Cable PN, Where X is 1:LSZH, 2:FRLS, 3:UV Resistant, 4:Rodent Resistant