

**TECHNICAL DETAILS 12/24/48/72/96/144 FIBER (SM, G.652D)  
SINGLE SHEATH, UNDERGROUND DUCT, MULTI LOOSE TUBE OPTICAL CABLE**

**MECHANICAL CHARACTERISTICS:**

Temperature Range (IEC 60794-1-2-F1)	Installation & Operation -10°C to +50°C
	Storage -10°C to +70°C
Cable Bending Radius (IEC 60794-1-2-E11A)	4 Complete wraps around 12XD Madrel
Max. Tensile Strength (IEC 60794-1-2-E1)	0.6x9.81x2W (W= Weight of 1Km length of Cable)
Crush Resistance (IEC 60794-1-2-E3)	2000 N/ (100x100)mm
Impact Resistance (IEC 60794-1-2-E4)	2 N.m
Torsion Resistance (IEC 60794-1-2-E7)	10 Cycle (± 180°), 5 Kg Weight, L= 2 Mtr
Water Penetration (IEC 60794-1-2-F5B)	1 Mtr Water Head, 3 Meter Cable Sample, 24 Hours
Drip Test (IEC 60794-1-1)	1 Hour at 80°C

**OPTICAL CHARACTERISTICS:**

For Singlemode Fiber-9/125 micron	≤ 0.36 dB/Km
at 1310 nm	
at 1550 nm	≤ 0.22 dB/Km

**COLOUR CODING:**

Colour of Fibers in a Tube :

<b>6F/Tube:</b>	Blue,Orange,Green,Brown,Slate & White
<b>12F/Tube:</b>	Blue,Orange,Green,Brown,Slate,White,Red,Black, Yellow Violet,Pink & Aqua

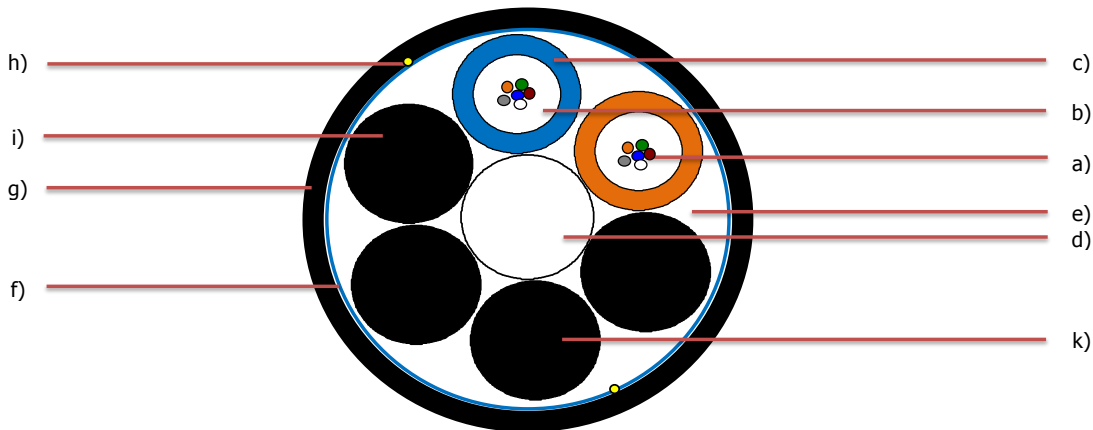
Colour of Loose Tubes:

<b>For 12F</b>	Blue,Orange & 4 Fillers
<b>For 24F</b>	Blue,Orange,Green,Brown & 2 Fillers
<b>For 48F</b>	Blue,Orange,Green,Brown & 2 Fillers
<b>For 72F</b>	Blue,Orange,Green,Brown,Slate & White
<b>For 96F</b>	Blue,Orange,Green,Brown,Slate,White,Red & Black
<b>For 144F</b>	Blue,Orange,Green,Brown,Slate,White,Red,Black, Yellow Violet,Pink & Aqua

**CABLE CONSTRUCTIONAL DETAILS:**

a)	Primary Coated Fiber	Singlemode - 9/125micron, G.652D
b)	Tube Filling Compound	Thixotropic Jelly
c)	Loose Tube	PBTP
d)	Central Strength Member	FRP Rod
e)	Water Blocking Agent	Water Swellable Yarn
f)	Moisture Barrier	Water Blocking Tape
g)	Outer Sheath	UV Stabilised HDPE, Black
h)	Ripcord	To rip open outer sheath
i)	Filler	PE, Black

**Typical Construction of a 12 fiber Cable**



**DELIVERY INFORMATION:**

	<b>12F&amp;24F</b>	<b>48F &amp; 72F</b>	<b>96F</b>	<b>144F</b>
Nominal Cable Weight (Kg/Km)	80 (Nom.)	100 (Nom.)	130 (Nom.)	210 (Nom.)
Nominal Cable Diameter (mm)	10.5 +/- 0.5	11.7 +/- 0.5	13.2 +/- 0.5	16.5 +/- 1.0

**CABLE SHEATH MARKING:**

Cable sheath shall be marked in white colour with Hot Foil Indentation method. Marking details can be customized. Below mentioned details are generally marked on the cable sheath.

Telephone Symbol, Laser Symbol, Number of Fibres, Type of Fibre, Month & Year of Manufacturer, Birla Cable, India, Sequential Meter Marking & Drum Number

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