



## TECHNICAL DETAILS OF 12F-288F FIBRE (G652D), MULTI LOOSE TUBE UNARMoured, MICRO OPTICAL FIBRE CABLE-HDPE

### **INTRODUCTION**

Multi Loose tube, unarmoured, micro fibre optic cable containing LWP-SMF, in full compliance with ITU-T G652D 250um. The offered cables are fully compliant to the relevant IEC specifications.

#### **(1) CABLE DESIGN:**

- \* Fibers in full compliance with 250um ITU-T-G 652 D.
- \* Non metallic and anti-buckling element used as Central Strength Member for Tensile Strength
- \* Loose buffer tubes fully filled
- \* Loose buffer tubes S-Z Stranded
- \* UV Protected HDPE Black Outer Sheath

#### **(2) APPLICATION:**

- \* Suitable for Installation inside Micro Ducts

#### **(3) SPECIAL FEATURES:**

- \* Completely dielectric cable/ non metallic cable immune to electromagnetic interferences
- \* Suitable for Micro Duct Installation

#### **(4) MECHANICAL CHARACTERISTICS:**

Temperature Range (IEC 60794-1-2-F1)

Laying and Installation -30° to +70°C

Operation -30° to +70°C

Transport and Storage -30° to +70°C

Cable Bending Radius (IEC 60794-1-2-E11A)

During Installation 20 x D, D = Cable Diameter

Installed 15 x D, D = Cable Diameter

Repeated Bending (IEC 60794-1-2-E6)

30 Cycle, r= 20 X D, 1 Kg Load, D = Cable Diameter

Tensile Force (IEC 60794-1-2-E1)

**up to 72F      96F/144 F/192F      288F**

During Installation 500 N

1000 N

1500 N

Installed 350 N

800 N

1000 N

Torsion Resistance (IEC 60794-1-2-E7)

2 Cycle (± 180°) 5 Kg Weight, L= 2 Mtr

Crush Resistance (IEC 60794-1-2-E3)

350 N (100 X 100 mm) for 60 sec

Kink Resistance (IEC 60794-1-2-E10)

15 x D, D = Cable Diameter

#### **(5) OPTICAL CHARACTERISTICS:**

Fibre used in the cable manufacturing fully comply to ITU-T-Rec G 652 D as per attached data sheet

at 1310 nm

≤ 0.35 dB/Km

at 1550 nm

≤ 0.25 dB/Km

#### **(6) COLOUR CODING:**

Colour of Fibres in a Tube :

Red, Green, Blue, Yellow, White, Slate, Brown, Violet, Aqua, Black, Orange & Pink

Ring Marked Fibers:

Red, Green, Blue, Yellow, White, Slate, Brown, Violet, Aqua, Natural, Orange & Pink

Colour of Loose Tubes:

Red, Green, Blue, Yellow, White, Slate, Brown, Violet, Aqua, Black, Orange & Pink

\* **for 12 fibre cable** : 1 Loose tubes having 12 Fibres and five dummy's

\* **for 24 fibre cable** : 2 Loose tubes each having 12 Fibres and four dummy's

\* **for 36 fibre cable** : 3 Loose tubes each having 12 Fibres and four dummy's

\* **for 48 fibre cable** : 4 Loose tubes each having 12 Fibres and two dummy's

\* **for 72 fibre cable** : 6 Loose tubes each having 12 Fibres

\* **for 96 fibre cable** : 8 Loose tubes each having 12 Fibres

\* **for 144 fibre cable** : 12 Loose tubes each having 12 Fibres

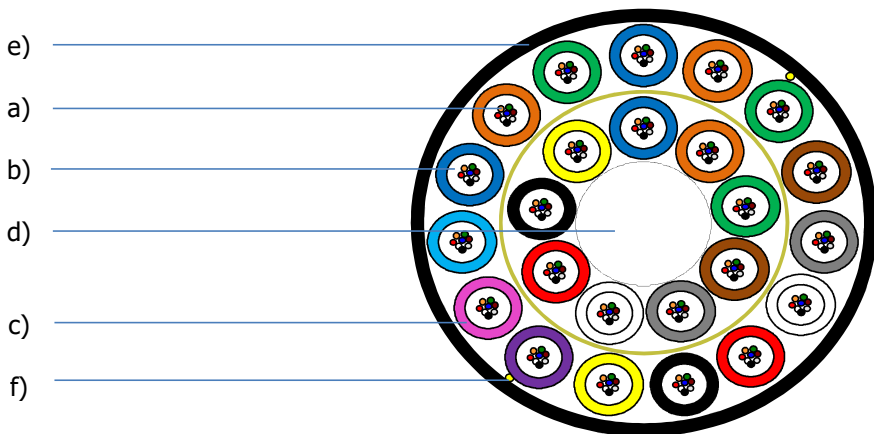
\* **for 192 fibre cable** : 16 Loose tubes each having 12 Fibres

\* **for 288 fibre cable** : 24 Loose tubes each having 12 Fibres (Last Three tubes will have Ring Marked Fibers)

**(7) CABLE CONSTRUCTIONAL DETAILS:**

- |                            |  |
|----------------------------|--|
| a) Primary Coated Fibre    | Single Mode - G 652 D                    |
| b) Tube Filling Compound   | Thixotropic Jelly                        |
| c) Loose Tube(s)           | PBTP (1.40mm/ 1.10mm +/- 0.05mm)         |
| d) Central Strength Member | FRP Rod ( <b>PE coated for 144 OFC</b> ) |
| e) Outer Sheath            | HDPE Black (T=0.5mm +/- 0.1mm)           |
| f) Ripcord                 | 2 Nos. Under Outer Sheath                |

**Typical Cross-section for 288F Micro OFC**



**(8) DELIVERY INFORMATION:**

	<b>Upto 72F</b>	<b>96F</b>	<b>144F</b>	<b>192F</b>	<b>288F</b>
Nominal Cable Weight (Kg/Km)	22	32	52	48	70
Nominal Cable Diameter (mm)	5.3 ± 0.3	6.1 ± 0.3	8.0 ± 0.4	8.1 ± 0.4	9.5 ± 0.4
Standard Length per Drum (Mtr)	4000 +/- 5%				

**(9) CABLE SHEATH MARKING:**

Cable sheath shall be marked with Ink Jet Printing method in contrast colour. Marking details can be customized as per customer requirements.

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