

TECHNICAL DETAILS OF 144 FIBRE XTREME (G652D/G657A1-200um), 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 & ITU-T G657A1 200um. The offered cables are fully compliant to the relevant IEC specifications.

(1) CABLE DESIGN:

- * Xtreme Fibers in full compliance with 200um ITU-T-G652D & ITU-T-G
- * Non metallic and anti-buckling element used as Central Strength Member for Tensile Strength
- * Loose buffer tubes fully filled (24F/Tube)
- * 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)	20 Cycle, r= 20 X D, 1 Kg Load, D = Cable Diameter
Tensile Force (IEC 60794-1-2-E1)	144F
	During Installation 500N
	Installed 350N
Torsion Resistance (IEC 60794-1-2-E7)	2 Cycle (± 180°) 5 Kg Weight, L= 2 Mtr
Crush Resistance (IEC 60794-1-2-E3)	300 N (100 X 100 mm) for 60 sec
Kink Resistance (IEC 60794-1-2-E10)	15 x D, D = Cable Diameter
Water Penetration (IEC 60794-1-2-F2)	3 Mts Cable Sample, 24 Hrs, 1 Mtr Water Head

(5) OPTICAL CHARACTERISTICS:

Fibre used in the cable manufacturing fully comply to ITU-T-Rec G 652D & ITU-T-Rec G 657A1, 200UM as per attached data sheet

at 1310 nm	≤ 0.35 dB/Km
at 1550 nm	≤ 0.25 dB/Km

(6) COLOUR CODING:

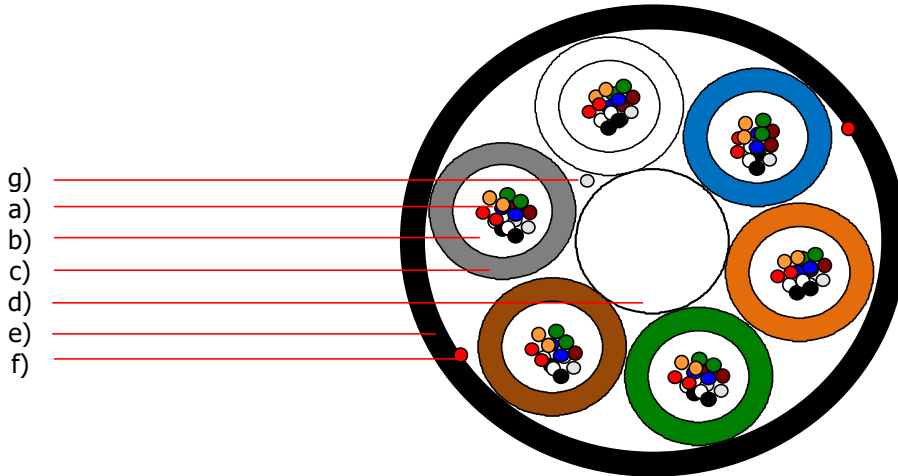
Colour of Fibres in a Tube :	Blue, Orange, Green, Brown, Slate, White, Red, Black Yellow, Violet, Pink, Aqua
Ring Marked Fibers	Blue, Orange, Green, Brown, Slate, White, Red, Yellow Violet, Pink, Aqua & Natural (Not Ring Marked)
Colour of Loose Tubes:	Blue, Orange, Green, Brown, Slate, White, Red, Black Yellow, Violet, Pink & Aqua

* **for 144 fibre cable** : 6 Loose tubes having 24 Fibres

(7) CABLE CONSTRUCTIONAL DETAILS:

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|----------------------------|--------------------------------------|
| a) Primary Coated Fibre | Single Mode - G 652D/ G 657A1, 200UM |
| b) Tube Filling Compound | Thixotropic Jelly |
| c) Loose Tube(s) | PBTP |
| d) Central Strength Member | FRP Rod |
| e) Outer Sheath | HDPE Black |
| f) Ripcord | 2 Nos. Under Outer Sheath |
| g) Water Blocking Agent | Water Swellable Yarn |

Typical Cross-section for 144 F OFC



(8) DELIVERY INFORMATION:

Nominal Cable Weight (Kg/Km)	144F 30
Nominal Cable Diameter (mm)	5.8 ± 0.3
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.

DOCUMENT No	UCL/RMC/0350 MICRO DUCT : MLT- HDPE
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