



Technical Data Sheet

Cable Description	12F,24F,48F,96F,144F SINGLE SHEATH UNDERGROUND CABLE FOR DUCT APPLICATION
Type of Fibre	Single Mode, G.652D

Introduction

Underground cable containing up to 144 LWP-SMF in full compliance with ITU-T G 652D. The offered cables are fully compliant to the relevant IEC specifications.

Cable Design

- * Upto 144 enhance low water peak single mode fibers in full compliance with ITU-T-G652D
- * Non-metallic and anti-buckling element FRP rod used as Central Strength Member
- * Loose buffer tubes fully filled
- * Loose buffer tubes S-Z Stranded
- * S-Z core is dry type filled with water swellable yarn & tape
- * Glass Yarn as peripheral strength member
- * UV Stablized, PE Outer sheath, black

Application

- * Duct installation

Special Features

- * Single layer stranded construction
- * Offers exceptional strength and corrosion resistance for aerial application
- * Flexible buffer tubes provide easy fibre routing inside closure
- * All dielectric construction

Cable Physical Characteristics

Fibre Count	12	24	48	72	96	144						
Number of Fibres in Each Tubes	12	12	12	12	12	12						
Number of Buffer Tubes in cable	1	2	4	6	8	12						
Cable Diameter (mm)	9,5	9,5	9,5	9,5	11,5	14,0						
Tolerance ± (mm)	0,5	0,5	0,5	0,5	0,5	0,5						
Nominal Cable Weight (kg/km)	75	75	75	75	100	150						
Standard Length (meters)	4000 ± 5%					2000 ± 5%						

Cable Mechanical & Environmental Characteristics

Test	Standard	Product Performance											
Temperature Range (°C)	[IEC 60794-1-2-F1]	Operation: -30 °C to +70 °C, Installation: -30 °C to +70 °C & Storage: -30 °C to +70 °C											
Cable Bending Radius (mm)	[IEC 60794-1-2-E11 A & B]	190	190	190	190	230	280						
Kink Resistance (mm)	[IEC 60794-1-2-E10]	95	95	95	95	115	140						
Max. Installation Tension (N)	[IEC 60794-1-2-E1]	2000 N	2000 N	2000 N	2000 N	2000 N	2000 N						
Impact Resistance (Nm)	[IEC 60794-1-2-E4]	50	50	50	50	50	50						
Crush Resistance (N/10cm)	[IEC 60794-1-2-E3]	2000	2000	2000	2000	2000	2000						
Torsion Resistance	[IEC 60794-1-2-E7]	10 Cycle, ± 360°, L=100N											
Water Penetration	[IEC 60794-1-2-F5 B]	1 Meter Water Head, 3 Meters Cable Sample, 168 Hours											

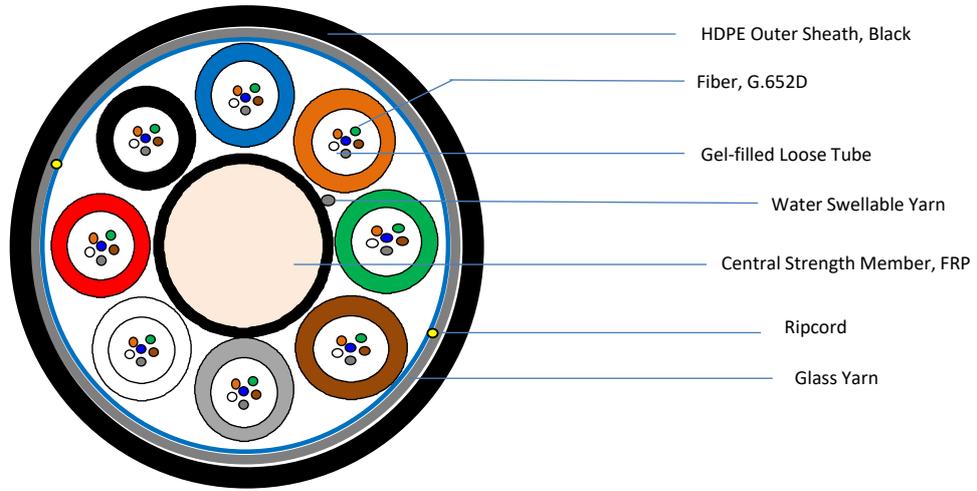
Note: After the Test, Change in Attenuation shall be ≤ 0.05 dB/Km. No Fibre Break & Damage or Crack on the Cable

Cable Transmission Characteristics

Fibre Type	G.652D	Attenuation Coefficient (dB/Km)				PMD	Cable Cut-Off	MFD
		850	1310	1383	1550	ps/sqrt.km	nm	µm
Single Mode	G.652D	-	≤ 0.36	≤ 0.36	≤ 0.22	≤ 0.2	≤ 1260	9.2 ± 0.4

Cable Constructional Details

Cable Cross Sectional Diagram of 96F Cable [Drawing not to scale]



Identification Fibre & Buffer Tubes

Fibre Colour	Blue	Orange	Green	Brown	Slate	White	Red	Black	Yellow	Violet	Rose	Aqua
Buffer Tube Colour	Blue	Orange	Green	Brown	Slate	White	Red	Black	Yellow	Violet	Rose	Aqua

Proposed Printing Details & Method at every meters

Printing Method & Colour	Hotfoil & White	CABLE ID Customer/Project Name Telephone Symbol, Laser Symbol, Number of Fibres, Type of Fibre Type of Cable YYYY Manufacturer Name Sequential Meter Marking
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Proposed Stencil on Drum

Every length will be delivered on non-returnable wooden drums. Generally the cable drum flange will be marked with following: (These details can also be customised.)	<ul style="list-style-type: none"> * Arrow showing the direction, the drum can be rolled. * Country of origin. * The manufacturer's name * Number of fibers. * Nominal cable length in meters * Net and gross weight. * Drum number * Customer's/Project name and destination
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