

LGCE-26-OC1018-00

Cable Description	24F / 48F / 96F FIBRE SINGLE SHEATH DUCT (LSZH) CABLE
Type of Fibre	Single Mode, G.657A1

Introduction

Duct (LSZH) optic cable containing LWP - SMF in full compliance with ITU-T G 657A1. The offered cables are fully compliant to the relevant IEC specifications.

Cable Design

- * Single mode fibers in full compliance with ITU-T-G657A1.
- * Non-metallic and anti-buckling element FRP rod used as Central Strength Member.
- * Loose buffer tubes fully filled Thixotropic Jelly and Fibers.
- * Loose buffer tubes S-Z Stranded
- * Cable core is Dry (Water Swellable Yarn over CSM)
- * Cable core is wrapped with Water Swellable Tape
- * Pheripheral Strength Member - Glass Yarn
- * Outer sheath - LSZH, Black
- * Rip cord to open the sheath

Application

- * Direct burial / Inside Duct
- * In areas with particularly high mechanical loads

Special Features

- * Single layer stranded construction
- * Glass Yarn acts as protection against mechanical damage.
- * Flexible buffer tubes provide easy fibre routing inside closure

Cable Physical Characteristics

Fibre Count	24	48	96
Number of Fibres in each Loose Tube	12		
Number of Loose Tube in each cable	2	4	8
Number of Filler (if Required)	4	2	0
Cable Diameter (mm)	10.2		11.5
Tolerance ± (mm)	0.5		
Nominal Cable Weight (kg/km)	105		135
Standard Length (meters)	4000 ± 10%		

Cable Mechanical & Environmental Characteristics

Test	Standard	Product Performance
Temperature Range (°C)	[IEC 60794-1-22-F1]	-30 °C to +70 °C
Cable Bending Radius (mm)	[IEC 60794-1-21-E11 A & B]	20 X D , D= Cable diameter
Tensile Force (N)	[IEC 60794-1-21-E1]	For 48F - 3000 N and For 96F - 6000N (@ 0.6 % Fiber strain for 10 min)
Impact Resistance (Nm)	[IEC 60794-1-21-E4]	5 Nm, 1 Time at 3 Places
Crush Resistance (N)	[IEC 60794-1-21-E3]	2000 N (100 X 100 mm)
Torsion Resistance	[IEC 60794-1-21-E7]	10 Cycles, ± 180°, L= 2 Mtr
Water Penetration	[IEC 60794-1-22-F5 B]	1 Meter Water Head, 3 Meters Cable Sample, 24 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

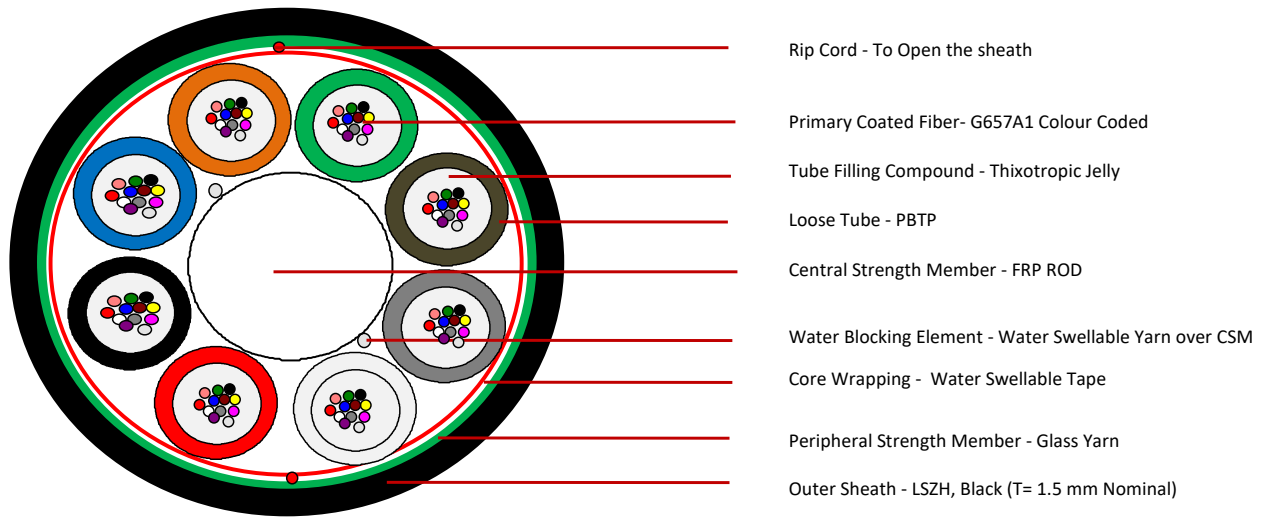
Fibre Type		Attenuation Coefficient (dB/Km)				PMD	Cable Cut-Off	MFD
		850	1300	1310	1550	ps/sqrt.km	nm	µm
Single Mode	G.657A1	-	-	≤ 0.36	≤ 0.22	≤ 0.2	≤ 1260	9.2 ± 0.4

Flame Retardant Test

Flame Retardant Test	[IEC 60332-1-2]	Pass
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Cable Constructional Details

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



Identification Fibre & Loose Tube Colour

Fibre Colour	Blue	Orange	Green	Brown	Slate	White	Red	Black	Yellow	Violet	Pink	Aqua
Loose Tube Colour	Blue	Orange	Green	Brown	Slate	White	Red	Black				

Proposed Printing Details & Method at every meters

Printing Method & Colour	Hot foil Indentation Method, Contrast Color	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 Stenciling 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.)	* 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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