



# STRUCTURED CABLING SYSTEMS

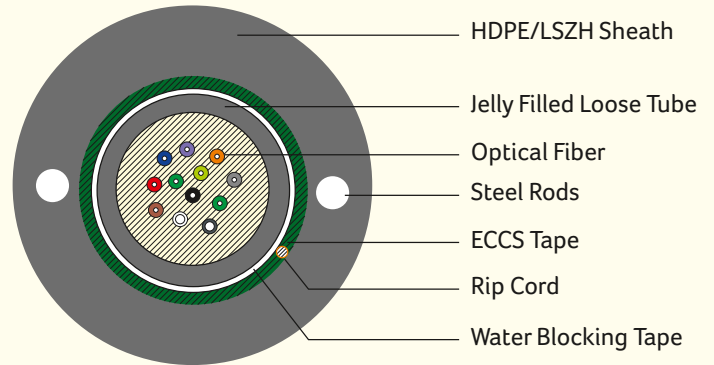
## DIGISOL Single Mode (OS2), Unitube Armoured Cable

### Introduction:-

DIGISOL Single Mode (OS2) Unitube Armoured Cable is a direct burial cable with thixotropic jelly in central loose tube to prevent water ingress and armour with high quality electro chromium corrugated steel tape. Embedded strength members by using 2 steel rods provides better tensile strength and antibuckling properties. Available in UV HDPE sheath and LSZH sheath.

### Key Features:-

- Suitable for Outdoor network direct burial
- Rodent proof
- UV protection
- Polyester based cord below armour tape for easy ripping
- Thermoplastic material loose tube
- Excellent water proof layer and moisture resistance
- Excellent Crush resistance performance
- Lightweight and Compact structure



### Constructional Specifications:-

Parameters	Fiber Core : 04, 06, 08, 12 F	Fiber Core : 24 F
Number of Fiber per Tube	04, 06, 08, 12 nos.	24 nos.
Fiber Colours	**	**
Number of Loose Tube	01 no.	01 no.
Loose Tube Colours	Natural	Natural
Loose Tube Internal Diameter	1.7 ± 0.1 mm (PBT)	2.6 ± 0.1 mm (PBT)
Loose Tube Outer Diameter	2.5 ± 0.1 mm (PBT)	3.5 ± 0.1 mm (PBT)
Peripheral Strength Member	0.6 ± 0.05 mm (Steel Rods - 2nos.)	0.6 ± 0.05 mm (Steel Rods - 2nos.)
Moisture Barrier	Water Swellable Tape	Water Swellable Tape
Armoring	≥ 0.150 mm (ECCS Tape)	≥ 0.150 mm (ECCS Tape)
Number of Rip Cords	01 no. (Polyester)	01 no. (Polyester)
Outer Sheath Thickness	1.5 mm (Nominal) (HDPE/LSZH Black)	1.5 mm (Nominal) (HDPE/LSZH Black)
Cable Diameter	7.5 ± 0.5 mm	8.5 ± 0.5 mm
Cable Weight (HDPE/LSZH)	65.0 ± 10 kg/km / 75.0 ± 10 kg/km	75.0 ± 5 kg/km / 95.0 ± 5 kg/km

Fiber Colours: \*\*  
 04 Fibers: Blue, Orange, Green, Brown/Natural  
 06 Fibers: Blue, Orange, Green, Brown, Slate, White/Natural  
 08 Fibers: Blue, Orange, Green, Brown, Slate, White, Red, Black/Natural  
 12 Fibers: Blue, Orange, Green, Brown, Slate, White, Red, Black, Yellow, Violet, Pink, Aqua/Natural  
 24 Fibers: Blue, Orange, Green, Brown, Slate, White, Red, Black, Yellow, Violet, Pink, Aqua, Blue, Orange, Green, Brown, Slate, White, Red, Black, Yellow, Violet, Pink, Natural (Ring marking for the next 12 colors)

### Environmental Specifications:-

Storage Temperature : -40 °C to +60 °C  
 Installation Temperature : -20 °C to +70 °C  
 Operating Temperature : -20 °C to +60 °C

### Standards:-

IEC 60793-1 & 60794-1                      Telecordia GR-20 Core  
 ANSI/TIA 568-C.3 & ISO/IEC 11801        ITU-T REC G.652D

### Ordering Information:-

Part Codes	Description
DGF-CAS2OUSX-YY	DIGISOL SM(OS2) UNITUBE, ARMoured, Y CORE, XX

Note: X / XX - Sheath Material - H / HDPE, L / LSZH

YY / Y - Number of fiber cores - 04 / 4, 06 / 6, 08 / 8, 12 / 12, 24 / 24.

Example: DGF-CAS2OUSH-04 - DIGISOL SM(OS2) UNITUBE, ARMoured, 4 CORE, HDPE  
 DGF-CAS2OUSL-06 - DIGISOL SM(OS2) UNITUBE, ARMoured, 6 CORE, LSZH

### Mechanical Specifications:-

Parameters	Fiber Core : 04, 06, 08, 12, 24 F	Standards
Tensile Strength	1000 N	IEC 60794-1-2-E1
Crush Resistance	4000 N/100 mm	IEC 60794-1-2-E3
Impact Strength	25 N.m	IEC 60794-1-2-E4
Torsion	± 180°	IEC 60794-1-2-E7
Minimum Bend Radius	20 x D	IEC 60794-1-2-E11

### Optical Fiber Specifications:-

Parameters	Fiber Core : 04, 06, 08, 12, 24 F
Fiber Type	G.652D (OS2)
Attenuation	≤ 0.34 dB/km (@1310 nm)
	≤ 0.22 dB/km (@1550 nm)
Chromatic Dispersion	≤ 3.5 ps/nm.km (@1285 - 1330 nm)
	≤ 18 ps/nm.km (@1550 nm)
Zero Dispersion Wavelength	1300 - 1324 nm
Zero Dispersion Slope	≤ 0.092 ps/nm <sup>2</sup> .km
Polarisation Mode Dispersion	≤ 0.2 ps/√km
Cut-off Wavelength	≤ 1260 nm
Mode Field Diameter	9.2 ± 0.4 μm (@1310 nm)
Core Cladding Concentricity Error	≤ 0.8 μm
Cladding Diameter	125 ± 1 μm
Cladding Non-circularity	≤ 1 %
Coating Diameter	245 ± 10 μm

### Cable Size & Standard Length:-

4F to 12F : 4.0 kms ± 10%  
 24F : 2.0 kms ± 10%