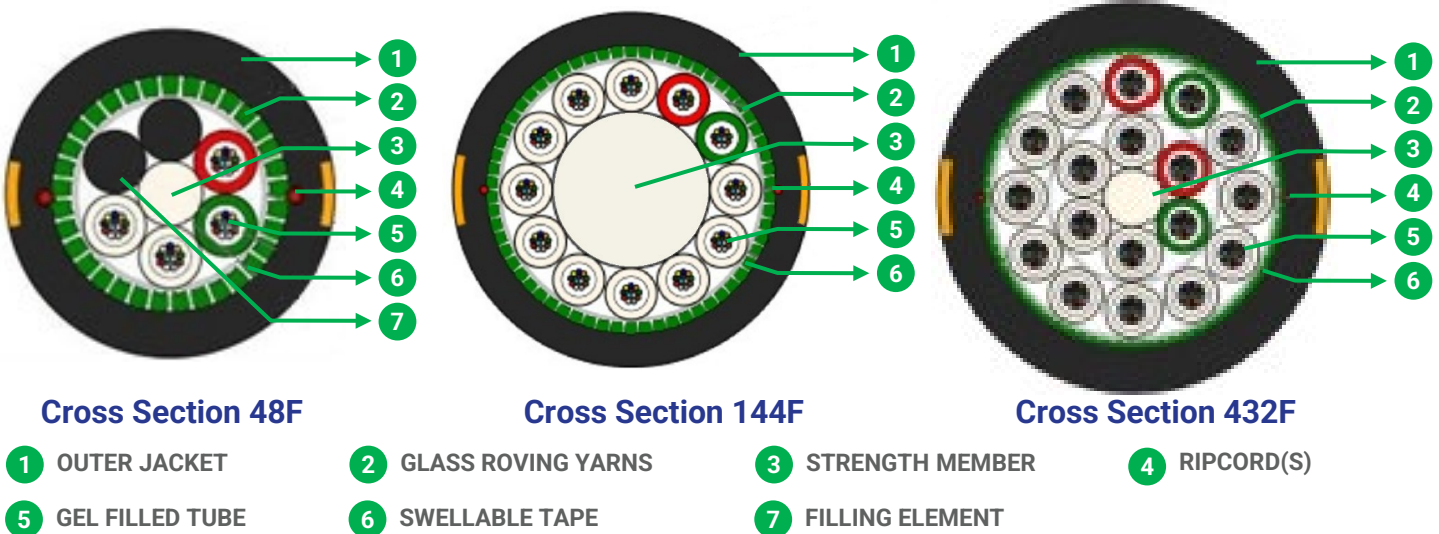


Duct-Lite

Multitube Gel Filled OFC with Glass Roving Yarns 12F – 576F
A-DQ(ZN)B2Y nn x ff E9/125 (nn =1 to 24; ff = 12 or 24)



* Typical Construction Diagram - Not to Scale

Features and Benefits

- Duct cables with glass roving yarns are ideal for installation by pulling or air-blowing in conventional ducts, they can also be direct buried in clean sand bed
- The glass roving yarns armouring provides enhanced rodent protection
- Dry water-blocking technology for gel free core helps in quicker end preparation
- No earthing needed thanks to fully dielectric construction
- Easily removable rugged thermoplastic jacket with UV protection
- Flexible, light weight, easy to handle and install
- Class Fca rated according to CPR (DoP STL/INT/0039 / DOP 3202.FO.800 MB)

Product Details

STL Duct-LITE Out-Side Plant, Single Jacket with Glass Roving Yarns Fibre Optic Cables are suitable for installation in conventional ducts by means of pulling or air-blowing techniques. These cables are based on a loose tube structure with optical fibres placed inside robust buffer tubes stranded around a fibre-glass reinforced plastic (FRP) central strength member. In addition to the optical fibres, the buffer tubes are gel filled, and water swellable yarns and tape are added to the core to ensure longitudinal water protection. A layer of glass roving yarns provides additional tensile strength and enhanced rodent protection. An outer jacket of thermoplastic material is extruded over the cable core as a mechanical and environmental protection.

Fibres and Cable Performance Standards

The fibres and cables are compliant with the following standards: IEC 60793, IEC 60794-3-10, ITU-T, RoHS, REACH.

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Printing Details

Printing: STERLITE SM FIBRE TYPE FIBRE COUNT-F DUCT-LITE-OFC CE-MARKING-Fca LASER-SYMBOL TELEPHONE-SYMBOL YEAR OF MANUFACTURE LENGTH CODE METER MARKING.

Note: The accuracy of marking shall be + 0.5%. Occasional loss of printing and remarking shall be as per Bell core GR 20 and this supersedes the earlier markings.

Specifications

Physical and Optical Characteristics	
Maximum Cabled Fibre Attenuation (dB/km)	1310 nm: 0.35; 1550 nm: 0.23; 1625 nm: 0.26
PMD LDV (ps/√km)	≤ 0.1
Fibres per Tube	12 or 24
Central Strength Member	FRP (Fibre Reinforced Plastic)
Fillers (if required)	Thermoplastic material, natural colour
Core Binder	Binder and water swellable tape and yarns
Peripheral Strength Members	Glass Roving Yarns
No. of Ripcords Below Outer Jacket	2
Outer Jacket Thickness (mm)	1.5
Outer Jacket Material	UV Proof Black with 2 Orange stripes ¹ HDPE

Fibres Colour Sequence (as per Swisscom) ^{2, 3}											
Red	Green	Yellow	Blue	White	Violet	Orange	Black	Grey	Brown	Pink	Turquoise

Notes: ¹Other jacket colours are available on demand, prior approval.

²The fibres 13 to 24, when present, have a black ring marking (the black fibre is replaced by a natural fibre with black ring marking. The colour sequence of the tubes in each layer is: Red, Green, White, White, White..., for other codes where the tubes follow the same sequence as the fibres then the tubes above 12, when present, have a longitudinal black stripe ink-jet marked or co-extruded (black tube with white stripe).

³Other available fibres and tubes colour sequences are listed in the "Ordering Information" section at the end of the document.

Cable Designs ⁴ with 9000N Tensile Strength									
Fibre Count	Tubes/Fillers	Cable Diameter ⁵ (mm) ± 5%	Cable Weight (kg/km) ± 10%	FRP/Overcoating Diameter (mm)	Loose Tube Diameter (mm)	Max. Tensile Strength (N)		Crush Resistance (N/10cm)	
						Short Term	Long Term	Short Term	Long Term
12	1/5	13.8	150	2.8/none	2.6	9000	3000	3000	1500
24	2/4	13.8	150	2.8/none	2.6	9000	3000	3000	1500
36	3/3	13.8	150	2.8/none	2.6	9000	3000	3000	1500
48	4/2	13.8	150	2.8/none	2.6	9000	3000	3000	1500
72	6/0	13.8	150	2.8/none	2.6	9000	3000	3000	1500
96	8/0	15.4	184	3.5/4.5	2.6	9000	3000	3000	1500
144	12/0	19.0	275	3.5/8.1	2.6	9000	3000	3000	1500
192	(6+10)/2	19.3	235	2.8/none	2.6	9000	3000	3000	1500
216	(6+12)/0	19.3	240	2.8/none	2.6	9000	3000	3000	1500
288	(9+15)/0	19.2	290	3.5/5.4	2.6	9000	3000	3000	1500
432	(6+12)/0	19.5	292	2.8/none	2.6	9000	3000	3000	1500
576	(9+15)/0	21.9	300	3.5/5.4	2.6	9000	3000	3000	1500

Notes: ⁴A selection of available fibres can be found in the respective Ordering Information section at the end of the document

⁵The maximum value of cable diameter is determined according to the ASTM D4565-20 standard.

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Specifications

Mechanical and Environmental Characteristics		
Cable Characteristics	Cable Performance	Testing Standard Method
Tensile Strength (N)	As per table above	IEC 60794-1-21 E1
Crush Resistance (N/10cm)	As per table above	IEC 60794-1-21 E3A
Impact Strength (N·m)	10	IEC 60794-1-21 E4
Torsion	±180°	IEC 60794-1-21 E7
Repeated Bending	20 x OD	IEC 60794-1-21 E6
Bend	20 x OD	IEC 60794-1-21 E11A
Min. Bend Radius (During Installation)	20 x OD	
Min. Bend Radius (After Installation)	15 x OD	
Water Penetration Test	1 m waterhead, 3 specimens, 24 h	IEC 60794-1-22 F5B
Drip Test	30 cm, +70 °C, 24 h	IEC 60794-1-21 E14
Temperature Ranges		IEC 60794-1-22 F1
Installation	-5 °C to +50 °C	
Operation	-30 °C to +70 °C	
Storage/Transportation	-40 °C to +70 °C	

Notes: All tests shall be performed according to the relevant methods of the IEC 60794-1 standard series with limit values and acceptance criteria according to the IEC 60794-3-10 standard.

Packing and Lengths

Drum Type	Drum lengths ⁶ (km)	Order Tolerances	Short Lengths
Wooden Drums	4; 6 ± 5%	±5%	Max. 5%, upon customer's approval

Notes: ⁶Other drum lengths are available on demand, prior approval.

Ordering Information

Other fibre counts, types and colours sequences may be available on request, please create product code from the table below.

Product Type		Fibre Count (0012 – 0576)				Fibre Type		No. of Active Tubes (01 – 24)		Cable Core Type	Fibres/Tubes Colour Sequence		Jacket Type		Running Number		Special Requirements	
		1				2		3			4						5	
D	2	-	-	-	-	-	-	-	-	G	-		P	1	0	0	T	9

1. **Fibre Count:** Select the desired fibre count by indicating the corresponding number from 0012 to 0576.

2. **Fibre Type:** Select the code for the desired fibre type from the table below

Code		Fibre Type (ITU-T)	STL's Fibre Name	Mode Field Diameter (MFD) @1310 nm (µm)
S	3	G. 652 D	OH-LITE 250	9.1 ± 0.4
S	N	G.657 A1/ G.652 D	Nova 250	9.2 ± 0.4
C	1	G.657 A2/ G.652 D	Stellar 250	9.1 ± 0.4
S	2	G.657 A2	HD A2 250	8.6 ± 0.4

3. **No. of Active Tubes:** Select the desired number of active tubes by indicating the corresponding number from 01 to 24

4. **Fibres/Tubes Colour Sequence:** Select the code for the desired fibre and tubes colour sequence from the table below⁷.

Code	Fibres and Tubes Colour Sequence
A	EIA/TIA 598 C
D	DIN/VDE 0888
F	France
H	Switzerland ⁸
I	Italy
L	Hungary
M	Poland

Note: ⁷Other colour codes are available on demand prior approval.
⁸The cables of this family with Swiss colour code also have 2 orange stripes on the outer jacket.

5. **Special requirements:** Select the code for the desired tensile strength from the table below⁹

Code		Special Requirements
T	9	9000 N

Note: ⁹Other mechanical requirements are available on demand prior approval.