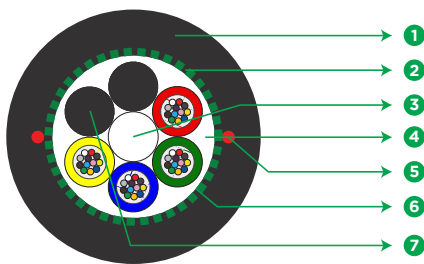
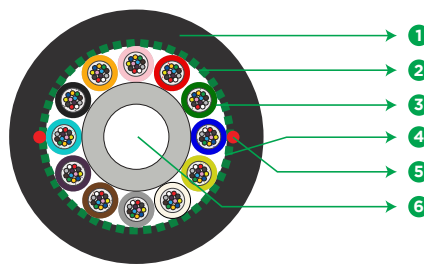


Duct-Lite

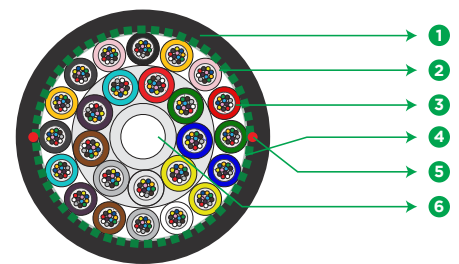
Multitube Gel Filled LSZH OFC with Glass Roving Yarn 12F - 288F



Cross Section 48F



Cross Section 144F



Cross Section 288F

- | | | | | | | | |
|--|--------------------------|--|-----------------------------|--|--------------------------|--|--------------------------|
| | 1 OUTER PA JACKET | | 2 GLASS ROVING YARNS | | 3 STRENGTH MEMBER | | 4 GEL FILLED TUBE |
| | 5 RIPCORD(S) | | 6 SWELLABLE TAPES | | 7 FILLERS | | |

* Typical Construction Diagram - Not to Scale

Features & Benefits

- Duct cables for Indoor/Outdoor applications with glass roving yarns are ideal for installation by pulling 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 resistant
- Flexible, light weight, easy to handle and install
- Class Eca rated according to CPR

Product Details

STL Duct-LITE Indoor/Outdoor, Single Jacket with Glass Roving Yarns Fibre Optic Cables are suitable for installation in conventional ducts by means of pulling 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 LSZH thermoplastic material is extruded over the cable core as a mechanical and environmental protection. Class Eca rated to CPR.

Fibres and Cable Performance Standards

The cables comply to the following standards IEC 60793-2-50, IEC 60794-3-10, ITU-T G652 and/or G657, RoHS, REACH.

Printing Details

Printing: STERLITE SM FIBRE TYPE FIBRE COUNT F DUCT-LITE I/O OFC Eca LASER SYMBOL TELEPHONE SYMBOL
YEAR OF MANUFACTURE LENGTH CODE METER MARKING

Printing method: Ink-Jet/Hot Foil

Note: The accuracy of marking shall be + 0.5%.

Specifications

Physical Characteristics	
Maximum Cabled Fibre Attenuation (dB/km)	1310nm: 0.35; 1550nm: 0.23; 1625nm: 0.26
PMD LDV (ps/sqrt.km)	≤ 0.1
Fibres per Tube	12
Central Strength Member	FRP (Fibre Reinforced Plastic)
Fillers (if required)	Thermoplastic material (Natural Coloured)
Core binder	Binder and water swellable yarns
Peripheral Strength Elements	Glass Roving Yarns
No of Ripcords Below Outer Sheath	2
Outer Jacket Thickness (mm)	1.5 (nominal)
Outer Jacket Material	UV Resistant Black, LSZH

Fibres Colour Sequence (as per DIN/VDE 0888)^{1,2}

Red	Green	Blue	Yellow	White	Grey	Brown	Violet	Turquoise	Black	Pink	Orange
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Note: ¹The fibres 13 to 24, when present, have a black ring marking (the back fibre is replaced by a natural fibre with black ring marking), the tubes above 12, when present, have a longitudinal black stripe ink-jet marked or co-extruded (black tube with white stripe).

²Other fibres and tubes colour sequences are available on demand, prior approval.

Cable Designs with 3000 N Tensile strength

Product Code	Fibre count	Fibre Type	Tube/ Fillers	Buffer tube size (mm) ±0.05	Cable Diameter (mm) ±5%	Cable Weight (kg/km) ±10%	Tensile Strength Short Term (N)
D10012S301GDL101EO	12	G.652D	1/5	2.0	10.0	118	3000
D10024S302GDL101EO	24	G.652D	2/4	2.0	10.0	118	3000
D10048S304GDL101EO	48	G.652D	4/2	2.0	10.0	118	3000
D10072S306GDL101EO	72	G.652D	6/0	2.0	10.0	118	3000
D10096S308GDL101EO	96	G.652D	8/0	2.0	11.2	150	3000
D10144S312GDL101EO	144	G.652D	12/0	2.0	13.9	210	3000
D10288S324GDL101EO	288	G.652 D	(9+15) ³ /0	2.0	16.5	275	3000

Cable Designs with 3000 N Tensile strength

Product Code	Fibre count	Fibre Type	Tube/ Fillers	Buffer tube size (mm) ± 0.05	Cable Diameter (mm) $\pm 5\%$	Cable Weight (kg/km) $\pm 10\%$	Tensile Strength Short Term (N)
D10012S101GDL101EO	12	G.657 A1	1/5	2.0	10.0	118	3000
D10024S102GDL101EO	24	G.657 A1	2/4	2.0	10.0	118	3000
D10048S104GDL101EO	48	G.657 A1	4/2	2.0	10.0	118	3000
D10072S106GDL101EO	72	G.657 A1	6/0	2.0	10.0	118	3000
D10096S108GDL101EO	96	G.657 A1	8/0	2.0	11.2	150	3000
D10144S112GDL101EO	144	G.657 A1	12/0	2.0	13.9	210	3000
D10288S124GDL101EO	288	G.657 A1	(9+15) ³ /0	2.0	16.5	275	3000

Note: ³Cable core having 2 layers of loose tube 9 tube the inner layer and 15 tubes in outer layers. Please note that Cable Designs with 6000 N Tensile strength is available on available on demand, prior approval.

Specifications

Mechanical & Environmental Characteristics

Cable Characteristics	Cable Performance	Testing Standard Method
Tensile Strength Short term	As per above tables	IEC-60794-1-21-E1
Crush Resistance (N/cm)	2000	IEC-60794-1-21-E3A
Impact Strength(Nm)	10	IEC-60794-1-21-E4
Torsion	$\pm 180^\circ$	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	1m waterhead, 3m samples, 24 h	IEC-60794-1-21-F5B
Drip Test	30 cm, 70° C, 24 hr	IEC-60794-1-21-E14
Temperature Performance		IEC-60794-1-22-F1
Installation	-5° C to +50° C	
Operation	-30° C to +70° C	
Storage	-40° C to +70° C	

Note: 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	Length Multiple (in km)
Wooden Drums	4, 6, 8 ± 5% (For all Fibre Counts)

Ordering Information

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

Product type		Fibre count (0004 - 0288)				Fibre type		No. of active tubes (01-24)		Cable core type	Fibres colour code		Jacket type		Running number (00-99)		Special requirement	
		1				2		3			4							
D	1	-	-	-	-	-	-	-	-	G	-	-	L	1	0	1	E	0

- Fibre count by indicating the corresponding number from 0004 to 0288
- Fibre code corresponding to requested fibre type among following options

Fibre code		Fibre type (ITU-T)	STL's Fibre Name
S	3	G.652D	OH-LITE
S	1	G652D/G657.A1	BOW-LITE
S	N	G657A1 adv/G652D	OH-LITE NOVA
S	2	G.657A2	BOW-LITE (E)

- Number of active tubes : 01 to 24

- Fibres colour sequence available options⁴

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

Note: ⁴other colour codes are available on demand prior STL approval

For additional information please contact your sales representative.

You can also visit our website at www.stl.tech

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