Product **Catalogue**

Fibre Optic Cable

stl.tech

ABOUT STERLITE TECH

We design, build, and manage web-scale networks for the needs of tomorrow

DESIGN | BUILD | MANAGE

Optical Communication PRODUCTS

Among the world's largest integrated manufacturers of glass preform, optical fibre, optical fibre cables, and data cables

System Integration SERVICES

Leader in system and network integration, with an extremely strong partner ecosystem

Telecom SOFTWARE

Key player in OSS and BSS solutions, powering next-generation telecom software. Recognised as 'visionary' in Gartner's Magic Quadrant

We partner with global service providers, large enterprises, and governments

We partner with:

GLOBAL SERVICE PROVIDERS

Eight of the top 10 global telco service providers for optical fibre networks

LARGE ENTERPRISES e.g. DEFENCE

The Indian defence to build the world's largest intrusion-proof network

SMART CITIES

Smart cities to design, build, and manage networks to enable citizen services

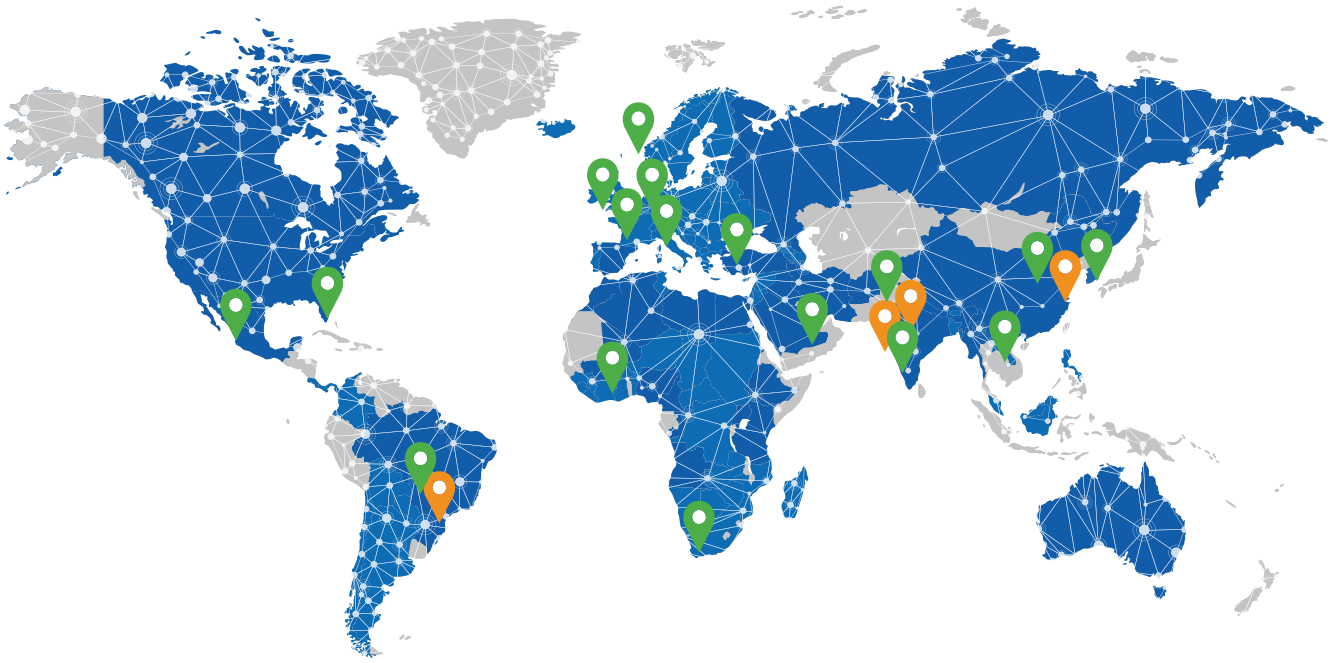
RURAL BROADBAND

The Indian government to enable the world's largest digital inclusion by connecting 2,50,000 villages

vodafone | LIQUID TELECOM | MTN | Jio | 中国电信 CHINA TELECOM | etisalat | maxis | VUMA | Smart City GANDHINAGAR

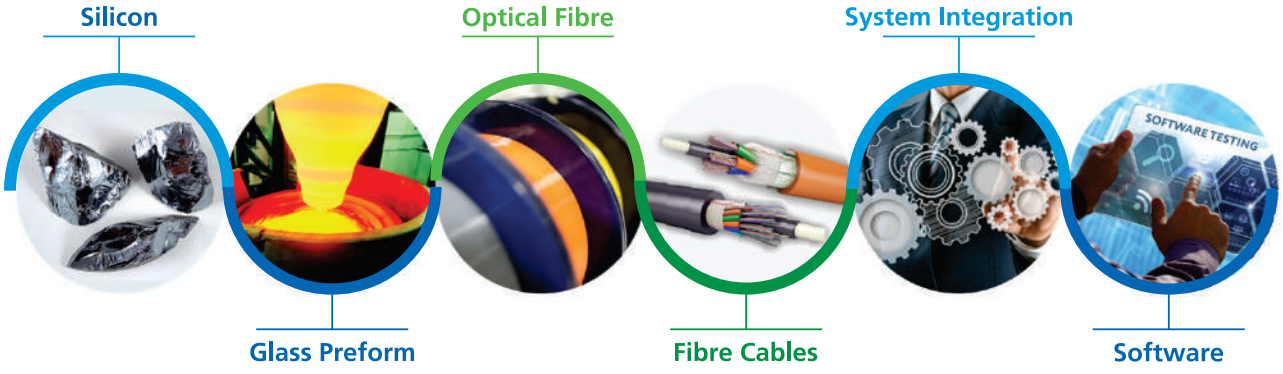
BT | airtel | 中国移动 China Mobile | Idea | LIBERTY GLOBAL | Telefónica | du | Virgin media | BBNL | orange | Digital India

We are a global MNC, with presence in over 100 countries



Market Presence Sales Offices Manufacturing Facilities

We are the only company in the world to have an integrated silicon-to-software capability



Sterlite Tech is backward integrated to manufacture optical fibre from sand, and forward integrated to offer broadband services and telecom software

Technology innovation is at the core of everything we do

Centre of Excellence, Aurangabad

Core research on optical fibre for high-speed connectivity

Centre for Smarter Networks, Gurgaon

Technology and applied research on smarter networks of the future

Sterlite Tech Academy

Training for deployment of future-ready communication networks

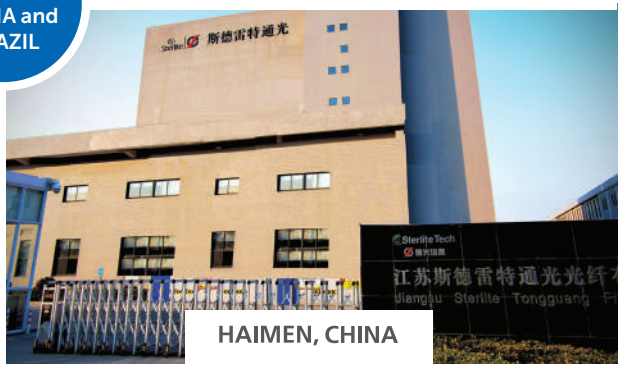
We have among the world's largest integrated manufacturing facilities for optical fibre and optical fibre cable

SILVASSA, INDIA

AURANGABAD, INDIA

Facilities in INDIA, CHINA and BRAZIL

CURITIBA, BRAZIL



HAIMEN, CHINA

Among the top three integrated players globally, with optical fibre capacity expansion from 30 mn fibre km to 50 mn fibre km

Ordering Customized Fibre Optic Cable

We offer a standard set of fibre optic cables for different applications, and these are available for quick delivery to customers. However, if you require cables not available under our standard set, we will design and deliver them as per your specifications.
If you want to order customized fibre optic cable, you'll need to share the following information with us.

a) What grade of fibre is required?

Different fibre grades are recommended based on use cases – for example, for FTTH A2 bend insensitive fibre is recommended due to minimal loss at bend points. To specify the fibre type you need, use the first two digits from optical fibre cable catalogue ID system.

b) What is the total fibre count and fiber count per tube or per module?

Total fibre count and fibre count per tube are decidedon the basis of the network architecture and number of drop points. Refer to digits 3-6 to specify the total fibre count and digits 9-11 to specify the fibre count per tube from optical fibre cable catalogue ID system.

c) What kind of buffer structure and installation is required?

Cable is also recommended on the basis of the terrain where it will be laid. Specify the physical robustness of the cable using digit 7 for installation and digit 8 for buffer structure from optical fibre cable catalogue ID system.

Note: Along with the cable architecture, specify the physical properties using digits 12-17 from the optical fibre cable catalogue ID system described on the following page.

Fibre Optic Cable Catalogue ID System

EXAMPLE – 2d0072: DM012: X-FRDE

2d-72 fibres,In duct Micro Module 12 fibres per tube,Wet-Dry FRP Armored Rodent Resistant Dual Jacket Easy Pull

Architecture

2d	0072	D	M	012
1-2	3-6	7	8	9-11

1-2 -> Fibre Grade
- 2d – G652D
- a1 – G657a1
- a2 – G657a2
- b3 – G657b3
- 55 – G655
- 56 – G556
- M1 – OM1
- M2 – OM2
- M3 – OM3
- M4 – OM4

3-6 -> Fibre Count
- 0001
- 0002
- 0004
- 0006
- 0008
- 0012
- 0024
- 0036
- 0048
- 0096
- 0144
- 0288
- 0432
- 0576
- 0720
- 0864
- 1152

7 -> Installation
- D – Duct
- B – Direct Burial
- A – Aerial Self Support
- 8 – Aerial Figure 8
- R – Drop/ Rise

8 - > Buffer Structure
- L – Loose Tube
- R – Ribbon Tube
- T – Tight Buffer Tube
- M – Micro Module Tube

9-11 -> Fibre per Tube
- 01
- 02
- 04
- 06
- 08
- 12
- 24
- 36
- 48
- 96
- 144

Property

X	-	F	R	D	E
12	13	14	15	16	17

12 -> Water Protection
- X – Wet Dry
- D – Dry Dry
- W – Wet Wet
- – No Water Protection

Wet Dry – 1st is for within tube and 2nd is for between

13 -> Fire Retarded (F) / -

14-> Armoring
- G –Glass Roving Yarns
- F- FRP
- M – Mica Tape
- T – Steel Tape
- A – Aluminum Tape
- W – Steel Wire
- – No Armoring

15 -> Rodent Resistant (R) / -

16 -> Jacketing
- S – Single Jacket
- D – Dual Jacket
- T – Triple Jacket

17 -> Easy Pull (E) / -

In this brochure, every catalogue ID represents a family of fibre optic cable. By varying the green colored characters different cables of the same family can be represented. For example “Ribbon Lite Unitube Single Jacket Steel Tape Armored

2d0144:BR144:W-TRS-
- 2d0048:BR048:W-TRS-
- 2d0072:BR072:W-TRS-
- 2d0096:BR096:W-TRS-
- 2d0144:BR144:W-TRS

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Outdoor Ribbon Fibre Optic Cable

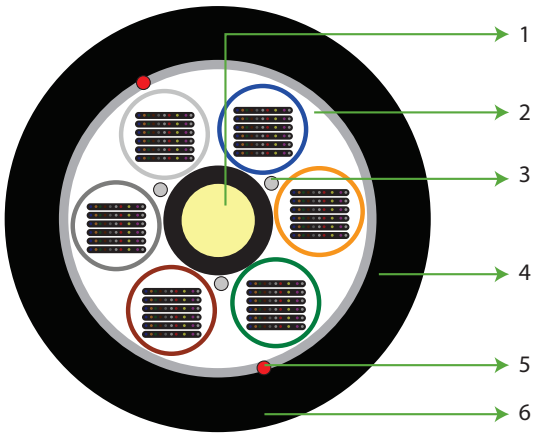
RIBBON-LITE® Multitube Single Jacket

2d1152:DR144:X---S-

Product Details

Sterlite Tech™ RIBBON- LITE® Multitube Single Jacket Cable combines robust performance for duct installations with the productivity of high-count mass fusion splicing. The optical fibres are arranged into ribbon units by placing the fibres in a flat array of 12 colours-coded fibres bonded together by a UV-curable matrix material. The Ribbon units placed inside robust buffer tubes are stranded around a fibre reinforced plastic (FRP) central strength member. In addition to optical fibres, the buffer tubes contain water blocking gel, and the cable core is surrounded with water-swellable tape to prevent water ingress in the interstices of cable core. The cable core is surrounded with thermoplastic sheath making the cable robust and installation friendly.

Typical Construction of Cable



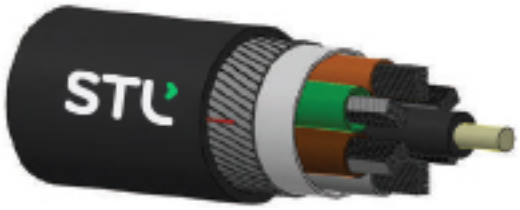
1. CENTRAL STRENGTH MEMBER
2. LOOSE TUBE WITH RIBBONS & GEL
3. WS YARNS
4. CORE WRAPPING WITH PERIPHERAL STRENGTH YARNS(IF REQUIRED)
5. RIPCORD(S)
6. OUTER SHEATH

Product Application

Ribbon cable design meets the application which requires delivering the highest fibre density in the most compact cable package possible. This cable offers an outstanding solution for demanding high-growth, high-bandwidth communications applications like data centers, equipment connections within cabinets, outside plant applications. These cables are basically used in duct installation applications

Features & Benefits

- Available up to 1152 fibre count in either single-mode or multi-mode optical fibres
- These cables have high fibre count leading to more efficient use of limited duct space
- Ribbon cable can be prepared and spliced much more rapidly
- Precise fibre and ribbon geometries result in excellent mass fusion splicing yields
- Fibre ribbons are individually marked for easy identification
- These are easy to install due to dry water-blocking design
- Multitube design with ripcords for easy and quick mid-span access
- Dry water-blocking technology for gel free core helps in quicker end preparation
- Easily removable rugged thermoplastic jacket
- Flexible, light weight, easy to handle & install
- Tensile and crush resistant
- UV protected
- Tightly controlled physical parameters
- Combination of fibre types available on request



Performance Standards

Cable Complies to the following main Standards IEC.60794 series, ANSI/ICEA S-87-640, Telcordia GR-20, ITU-T Recommendations, CPR certification for LSZH sheath

Specifications

Physical Characteristics							
Fibre Count	72	96	144	288	432	864	1152
No of Ribbon	6	8	12	24	36	72	96
Ribbon / Tube	2	2	2	4	6	12	12
Fibres/ Tube	24	24	24	48	72	144	144
Nominal Cable Diameter (mm) ± 0.5mm	18.0	18.0	20.0	21.0	22.0	26.0	32.2
Nominal Cable Weight (kg/km) ± 10%	220	220	270	290	330	460	645

Mechanical and Environmental Characteristics*								
Test	Standard / Notes	Product Performance						
Max. Tensile Strength (N)	IEC-60794-1-21-E1	2700	2700	2700	3000	3000	3000	3000
Bending Radius	IEC-60794-1-21-E11	Dynamic = 20D, Static = 15D						
Crush Resistance (N/100mm)	IEC-60794-1-21-E3	2000N	2000N	2000N	2500 N	2500 N	2500 N	2500 N
Impact strength (N.m)	IEC-60794-1-21-E4	25						
Torsion	IEC-60794-1-21-E7	± 180°						
Drip Test	IEC-60794-1-21-E14	30 cm, 70°C, 24 hr						
Temperature Cycling	IEC-60794-1-22-F1	Installation: -20°C to +60°C			Operation: -30°C to +70°C		Storage: -40°C to +70°C	
Water Penetration	IEC-60794-1-22-F5B	1m water head, 3m samples, 24 hrs no water leakage						

** After the test, the change in attenuation shall be ≤ 0.05 dB/km. No damage or crack on cable & no fibre break.

Cabled Optical Fibres Characteristics

The optical fibres are in accordance to the specifications ITU-T G.652D & G657A2. Refer to specific data sheets for details.

Transmission Characteristics						
Fibre Type	Attenuation coefficient, dB/km (Average/Maximum)			PMD, ps/√km	PMD LDV ps/√km	Cut-off Wavelength (λcc), nm 1310nm
	1310nm	1550nm	1625nm			
G652D**	≤ 0,35 / 0,36	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0 ,20	≤ 0,15	≤ 1260
G657A2 fibre	≤ 0,35 / 0,36	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0 ,20	≤ 0,15	≤ 1260

** This fibre is also available as a bend insensitive (Sterlite Tech's NOVA fibre)

Fibre Standard Colour Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Tube Standard Color Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Packing and Lengths

Packing: Wooden drums
Lengths (tolerance ±5%): 2km, 4km
Note - Customised drum lengths available on request.

Sheath printing details

STERLITE < Fibre Type ><Fibre Count><Product Type ><OFC Laser Symbol ><Telephone Symbol ><Month & Year of Production><Cable ID>< Meter Marking>

RIBBON-LITE® Multitube Single Jacket Steel Tape Armored

2d1152:BR144:X-TRS-

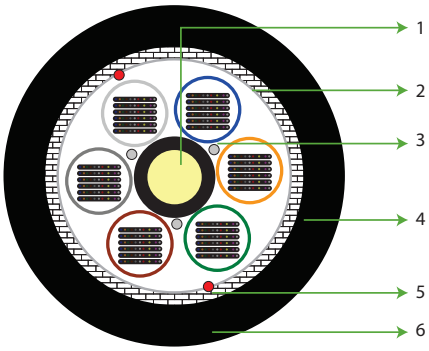
Product Details

Sterlite Tech™ RIBBON-LITE® Multitube Single Jacket Steel tape Armored Cable combines robust performance for duct installations with the productivity of high-count mass fusion splicing. The optical fibres are arranged into ribbon units by placing the fibres in a flat array of 12 colour-coded fibres bonded together by a UV-curable matrix material. The Ribbon units placed inside robust buffer tubes are stranded around a fibre reinforced plastic (FRP) central strength member. In addition to optical fibres, the buffer tubes contain water blocking gel, and the cable core is surrounded with water-swellable tape to prevent water ingress in the interstices of cable core. Corrugated Steel Tape armor surrounds the cable core with thermoplastic jacket placed over the armor layer making the cable robust and installation friendly.

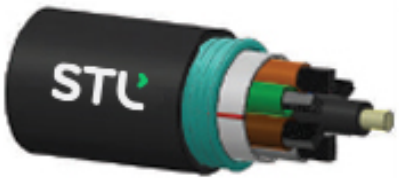
Product Application

Ribbon cable design meets the application which requires delivering the highest fibre density in the most compact cable package possible. This cable offers an outstanding solution for demanding high-growth, high-bandwidth communications applications like data centers, equipment connections within cabinets, outside plant applications. These can be used induct or direct buried installation applications.

Typical Construction of Cable

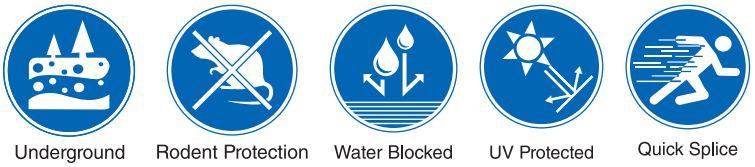


1. CENTRAL STRENGTH MEMBER
2. LOOSE TUBE WITH RIBBONS & GEL
3. WS YARNS
4. CORRUGATED STEEL TAPE
5. RIPCORD(S)
6. OUTER SHEATH



Features & Benefits

- Available up to1152 fibre count in either single-mode or multi-mode optical fibres
- These cables have high fibre count leading to more efficient use of limited duct space
- Ribbon cable can be prepared and spliced much more rapidly
- Precise fibre and ribbon geometries result in excellent mass-fusion splicing yields
- Fibre ribbons are individually marked for easy identification
- These are easy to install due to dry water-blocking design
- Steel tape adds to crush resistance as well as can be used as a cable locator after installation
- Multitube design with ripcords for easy and quick mid-span access
- Dry water-blocking technology for gel free core helps in quicker end preparation
- Easily removable rugged thermoplastic jacket
- Easy to handle & install
- Tensile and crush resistant
- UV protected
- Tightly controlled physical parameters
- Combination of fibre types available on request



Performance Standards

Cable complies to the following main Standards EC.60794 series, ANSI/ICEA S-87-640, Telcordia GR-20, ITU-T Recommendations,

Specifications

Physical Characteristics							
Fibre Count	72	96	144	288	432	864	1152
No of Ribbon	6	8	12	24	36	72	96
Ribbon / Tube	2	2	2	4	6	12	12
Fibres/ Tube	24	24	24	48	72	144	144
Nominal Cable Diameter (mm) ± 0.5mm	19.5	19.5	21.8	21.8	23.5	27.8	34.0
Nominal Cable Weight (kg/km) ± 10%	305	305	370	390	470	625	930

Mechanical and Environmental Characteristics*								
Test	Standard / Notes	Product Performance						
Max. Tensile Strength (N)	IEC-60794-1-21-E1	3000	3000	3000	3000	3000	3000	3000
Bending Radius	IEC-60794-1-21-E11	Dynamic = 20D, Static = 15D						
Crush Resistance (N/100mm)	IEC-60794-1-21-E3	3000	3000	3000	3000	3000	3000	3000
Impact strength (N.m)	IEC-60794-1-21-E4	50						
Torsion	IEC-60794-1-21-E7	± 180°						
Drip Test	IEC-60794-1-21-E14	30 cm, 70°C, 24 hr						
Temperature Cycling	IEC-60794-1-22-F1	Installation: -20°C to +60°C			Operation: -30°C to +70°C		Storage: -40°C to +70°C	
Water Penetration	IEC-60794-1-22-F5B	1m water head, 3m samples, 24 hrs no water leakage						

** After the test, the change in attenuation shall be ≤ 0.05 dB/km. No damage or crack on cable & no fibre break.

Cabled Optical Fibres Characteristics

The optical fibres are in accordance to the specifications ITU-T G.652D & G657A2. Refer to specific data sheets for details.

Transmission Characteristics						
Fibre Type	Attenuation coefficient, dB/km (Average/Maximum)			PMD, ps/√km	PMD LDV, ps/√km	Cut-off Wavelength (λcc), nm 1310nm
	1310nm	1550nm	1625nm			
G652D**	≤ 0,35 / 0,36	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0 ,20	≤ 0,15	≤ 1260

** This fibre is also available as a bend insensitive (Sterlite Tech's NOVA fibre)

Fibre Standard Colour Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Tube Standard Color Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Packing and Lengths

Packing: Wooden drums
Lengths (tolerance ±5%): 2km,
Note - Customised drum lengths available on request.

Sheath printing details

STERLITE < Fibre Type ><Fibre Count><Product Type ><OFC Laser Symbol ><Telephone Symbol ><Month & Year of Production><Cable ID>< Meter Marking>

RIBBON-LITE® Gel Free Multitube Single Jacket

2d0864:DR144:D---S-

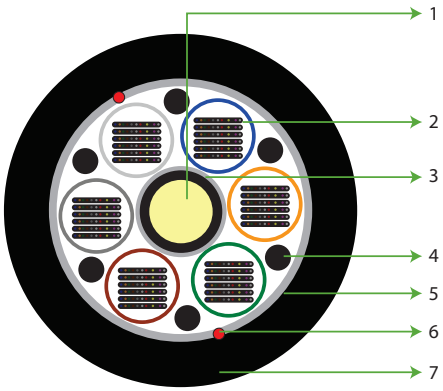
Product Details

Sterlite Tech™ RIBBON- LITE® Multitube Single Jacket Cable combines robust performance for duct installations with the productivity of high-count mass fusion splicing. The optical fibres are arranged into ribbon units by placing the fibres ina flat array of 12 colors-coded fibres bonded together by aUV-curable matrix material. The Ribbon units placed insiderobust buffer tubes are stranded around a fibre rein forced plastic (FRP) central strength member In addition to optical fibres, the buffer tubes contain water-swellable tape, and the cable core is surrounded with water-swellable tape to prevent water ingress in the interstices of cable core. The cable core is surrounded with thermoplastic sheath making the cable robust and installation friendly.

Product Application

Ribbon cable design meets the application which requires delivering the highest fibre density in the most compact cable package possible. This cable offers an outstanding solution for demanding high-growth, high-bandwidth communications applications like data centers, equipment connections with in cabinets, outside plant applications. These cables are basically used in duct installation applications

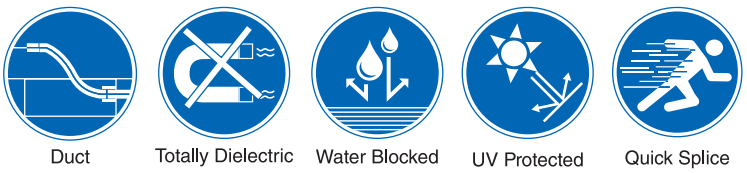
Typical Construction of Cable



1. CENTRAL STRENGTH MEMBER
2. LOOSE TUBE WITH RIBBONS & WATER SWELLABLE TAPE
3. WS ELEMENTS
4. FILLER
5. CORE WRAPPING WITH WATER SWELLABLE
6. RIPCORD(S)
7. OUTER SHEATH

Features & Benefits

- Available up to 864 fibre count in single mode optical fibre
- These cables have high fibre count leading to more efficient use of limited duct space
- Ribbon cable can be prepared and spliced much more Rapidly
- Precise fibre and ribbon geometries result in excellent mass fusion splicing yields
- Fibre ribbons are individually marked for easy identification
- These are easy to install due to dry water-blocking design
- Multitube design with ripcords for easy and quick mid-span access
- Dry water blocking materials inside and outside the tubes enable full water protection
- Water blocking yarns inside tubes enable rapid, clean fibre splicing and storage inside the joint enclosures
- Easily removable rugged thermoplastic jacket
- Flexible, light weight, easy to handle & install
- Tensile and crush resistant
- UV protected
- Tightly controlled physical parameters
- Combination of fibre types available on request



Performance Standards

Cable complies to the latest issue of following main Standards IEC.60794 series, ANSI/ICEA S-87-640, Telcordia GR-20, ITU-T Recommendations

Specifications

Physical Characteristics					
Fibre Count	216	288	432	576	864
No of Ribbon	18	24	36	48	72
Ribbon / Tube	3	4	6	8	12
Fibres/ Tube	36	48	72	96	144
Nominal Cable Diameter (mm) ± 0.5mm	20.0	20.0	23.0	25.0	27.6
Nominal Cable Weight (kg/km) ± 10%	240	245	310	400	420

Mechanical and Environmental Characteristics*						
Test	Standard / Notes	Product Performance				
Max. Tensile Strength (N)	IEC-60794-1-21-E1	2700	2700	2700	2700	2700
Bending Radius	IEC-60794-1-21-E11	Dynamic = 20D, Static = 15D				
Crush Resistance (N/100mm)	IEC-60794-1-21-E3	2000	2000	2000	2500	2500
Impact strength (N.m)	IEC-60794-1-21-E4	25				
Torsion	IEC-60794-1-21-E7	± 180°				
Drip Test	IEC-60794-1-21-E14	30 cm, 70°C, 24 hr				
Temperature Cycling	IEC-60794-1-22-F1	Installation: -20°C to +60°C		Operation: -30°C to +70°C		Storage: -40°C to +70°C
Water Penetration	IEC-60794-1-22-F5B	1m water head, 3m samples, 24 hrs no water leakage				

** After the test, the change in attenuation shall be ≤ 0.05 dB/km. No damage or crack on cable & no fibre break.

Cabled Optical Fibres Characteristics

The optical fibres are in accordance to the specifications ITU-T G.652D. Refer to specific data sheets for details.

Transmission Characteristics						
Fibre Type	Attenuation coefficient, dB/km (Average/Maximum)			PMD, ps/√km	PMD LDV ps/√km	Cut-off Wavelength (λcc), nm 1310nm
	1310ON	1550ON	1625ON			
G652D**	≤ 0,35 / 0,36	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0 ,20	≤ 0,15	≤ 1260
G6527A1	≤ 0,35 / 0,36	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0 ,20	≤ 0,15	≤ 1260

** This fibre is also available as a bend insensitive (Sterlite Tech's NOVA fibre)

Fibre Standard Colour Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Tube Standard Colour Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Packing and Lengths

Packing: Wooden drums
Lengths (tolerance ±5%): 2km, 4km
Note - Customized drum lengths available on request.

Sheath printing details

STERLITE < Fibre Type ><Fibre Count><Product Type ><OFC Laser Symbol ><Telephone Symbol ><Month & Year of Production><Cable ID>< Meter Marking>

RIBBON-LITE® Multitube Single Jacket ADSS

2d0288:AR048:X---S-

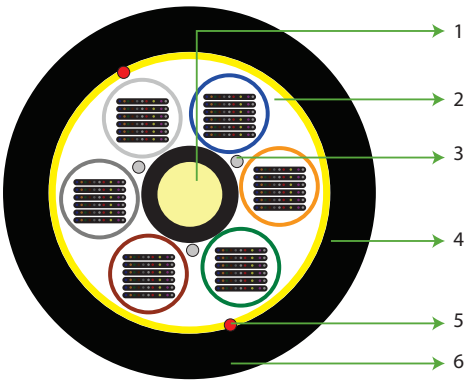
Product Details

Sterlite Tech™ RIBBON- LITE® Multitube Single Jacket ADSS Cable combines robust performance for duct installations with the productivity of high-count mass fusion splicing. The optical fibres are arranged into ribbon units by placing the fibres in a flat array of 12 colour-coded fibres bonded together by a UV-curable matrix material. The Ribbon units placed inside robust buffer tubes are stranded around a fibre reinforced plastic (FRP) central strength member. In addition to optical fibres, the buffer tubes contain water blocking gel, and the cable core is surrounded with water-swellable tape to prevent water ingress in the interstices of cable core. High strength aramid yarns are evenly distributed over the core to provide the required tensile strength for aerial self-supporting applications. An overall thermoplastic jacket provides the cable with both mechanical and environmental protection.

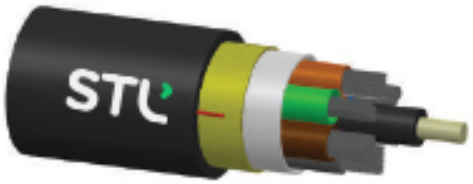
Product Application

Ribbon cable design meets the application which requires delivering the highest fibre density in the most compact cable package possible. This cable offers an outstanding solution for demanding high-growth, high-bandwidth communications applications like data centers, equipment connections within cabinets, outside plant applications. These cables are used in aerial applications for short to medium span-lengths including deployment along existing aerial Right of Way and electric transmission towers.This cable is suitable for aerial-to-duct /underground transitions.

Typical Construction of Cable

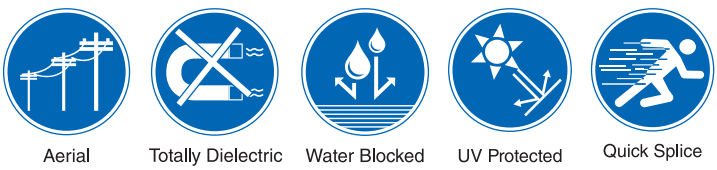


1. CENTRAL STRENGTH MEMBER
2. LOOSE TUBE WITH RIBBONS & GEL
3. WS YARNS
4. CORE WRAPPING WITH PERIPHERAL STRENGTH MEMBERS (ARAMID YARNS)
5. RIPCORD(S)
6. OUTER SHEATH



Features & Benefits

- Available up to 288 fibre count in either single-mode or multi-mode optical fibres
- These cables have high fibre count leading to more efficient use of limited duct space or aerial use
- Anti-tracking PE can be used for installation in the proximity of high tension power lines (Optional)
- This cable can be designed to suit specific requirements of span length, wind speed and other loading conditions
- Ribbon cable can be prepared and spliced much more rapidly
- Precise fibre and ribbon geometries result in excellent mass-fusion splicing yields
- Fibre ribbons are individually marked for easy identification
- These are easy to install due to dry water-blocking design
- Multitube design with ripcords for easy and quick mid-span access
- Dry water-blocking technology for gel free core helps in quicker end preparation
- Easily removable rugged thermoplastic jacket
- Flexible, light weight, easy to handle & install
- Tensile and crush resistant
- UV protected
- Tightly controlled physical parameters
- Combination of fibre types available on request



Performance Standards

Cable complies to the following main Standards IEC.60794 series, ANSI/ICEA S-87-640, Telcordia GR-20, ITU-T Recommendations,

Specifications

Physical Characteristics			
Fibre Count	96	144	288
No of Ribbon	8	12	24
Ribbon / Tube	2	2	4
Fibres/ Tube	24	24	48
Nominal Cable Diameter (mm) ± 0.5mm	18.0	20.0	200
Nominal Cable Weight (kg/km) ± 10%	237	280	285

Mechanical and Environmental Characteristics*				
Test	Standard / Notes	Product Performance		
NESC Conditions/Span		NESC Light/100 m NESC Medium/ 80 m NESC Heavy/ 50 m	NESC Light/100 m NESC Medium/ 80 m NESC Heavy/ 50 m	NESC Light/100 m NESC Medium/ 80 m NESC Heavy/ 50 m
Maximum Operating Tension	IEC-60794-1-21-E1	6000	6000	6000
Maximum Allowable Tension	IEC-60794-1-21-E1	12000	12000	12000
Installation Sag %		1%		
Bending Radius	IEC-60794-1-21-E11	Dynamic = 25D, Static = 20D		
Crush Resistance (N/100mm)	IEC-60794-1-21-E3	2000	2000	2000
Impact strength (N.m)	IEC-60794-1-21-E4	25		
Torsion	IEC-60794-1-21-E7	± 180°		
Temperature Cycling	IEC-60794-1-22-F1	Installation: -20°C to +60°C	Operation: -30°C to +70°C	Storage: -40°C to +70°C
Water Penetration	IEC-60794-1-22-F5B	1m water head, 3m samples, 24 hrs no water leakage		

** After the test, the change in attenuation shall be ≤ 0.05 dB/km. No damage or crack on cable & no fibre break.

Cabled Optical Fibres Characteristics

The optical fibres are in accordance to the specifications ITU-T G.652D. Refer to specific data sheets for details.

Transmission Characteristics						
Fibre Type	Attenuation coefficient, dB/km (Average/Maximum)			PMD, ps/√km	PMD LDV ps/√km	Cut-off Wavelength (λcc), nm 1310nm
	1310nm	1550nm	1625nm			
G652D**	≤ 0,35 / 0,36	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0 ,20	≤ 0,10	≤ 1260

** This fibre is also available as a bend insensitive (Sterlite Tech's NOVA fibre)

Fibre Standard Colour Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Tube Standard Color Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Packing and Lengths

Packing: Wooden drums
Lengths (tolerance ±5%): 2km
Note - Customised drum lengths available on request.

Sheath printing details

STERLITE < Fibre Type ><Fibre Count><Product Type ><OFC Laser Symbol ><Telephone Symbol ><Month & Year of Production><Cable ID>< Meter Marking>

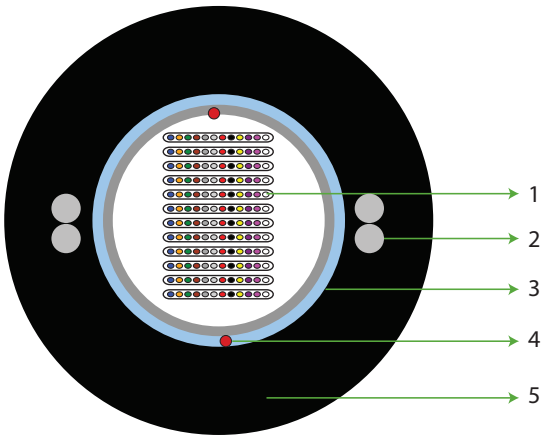
RIBBON-LITE® Gel Free Unitube Single Jacket

2d0144:DR144:D---S-

Product Details

Sterlite Tech™ RIBBON-LITE® Gel Free Unitube Single Jacket Cable combines robust performance for duct installations with the productivity of high-count massfusion splicing. The optical fibres are arranged into ribbon units by placing the fibres in a flat array of 12 color-coded fibres bonded together by a UV-curable matrix material. In addition to optical fibres, the buffer tubes contain water-swellable tape to prevent water in gress inside the tube. The loose-tube is surrounded with water-swellable tape to protect against moisture ingress, and anti-buckling strength members are provided in form of two diagonally opposite strength members embedded inside the thermoplastic outer sheath.

Typical Construction of Cable



1. LOOSE TUBE WITH RIBBONS & WATER BLOCKING TAPE
2. EMBEDDED STRENGTH MEMBERS
3. WATER SWELLABLE TAPE
4. RIPCORD(S)
5. OUTER SHEATH

Product Application

Ribbon cable design meets the application which requires delivering the highest fibre density in the most compact cable package possible. This cable offers an out standing solution for demanding high-growth, high bandwidth communications applications like campus,building, data centers, and equipment connections with in cabinets, premise and outside plant applications.They allow OSP applications to flow seamlessly indoors,using a single cable and no splices.

Features & Benefits

- Available up to 144 fibre count in single mode optical fibre
- These cables have high fibre count leading to more efficient use of limited duct space
- Ribbon cable can be prepared and spliced much more rapidly
- Precise fibre and ribbon geometries result in excellent mass-fusion splicing yields
- Fibre ribbons are individually marked for easy identification
- These are easy to install due to dry water-blocking design
- Dry water blocking materials inside and outside the tubes enable full water protection
- Water blocking elements inside tubes enable rapid, clean fibre splicing and storage inside the joint enclosures
- Easily removable rugged thermoplastic jacket
- Flexible, light weight, easy to handle & install
- Tensile and crush resistant
- UV protected
- Tightly controlled physical parameters
- Combination of fibre types available on request

Performance Standards

Cable complies to the latest issue of following main Standards IEC.60794 series, ANSI/ICEA S-87-640, Telcordia GR-20, ITU-T Recommendations

Specifications

Physical Characteristics				
Fibre Count	48	72	96	144
No of Ribbon	4	6	8	12
Fibres/ Ribbon	12	12	12	12
Nominal Cable Diameter (mm) ± 1.0 mm	12.0	12.5	13.0	14.5
Nominal Cable Weight (kg/km) ± 10%	97	100	107	165

Mechanical and Environmental Characteristics*					
Test	Standard / Notes	Product Performance			
Max. Tensile Strength (N)	IEC-60794-1-21-E1	2700	2700	2700	2700
Bending Radius	IEC-60794-1-21-E11	Dynamic = 25D, Static = 20D			
Crush Resistance (N/100mm)	IEC-60794-1-21-E3	2200	2200	2200	2200
Impact strength (N.m)	IEC-60794-1-21-E4	25			
Torsion	IEC-60794-1-21-E7	± 180°			
Drip Test	IEC-60794-1-21-E14	30 cm, 70°C, 24 hr			
Temperature Cycling	IEC-60794-1-22-F1	Installation: -20°C to +60°C	Operation: -30°C to +70°C	Storage: -40°C to +70°C	
Water Penetration	IEC-60794-1-22-F5B	1m water head, 3m samples, 24 hrs. no water leakage			

** After the test, the change in attenuation shall be ≤ 0.05 dB/km. No damage or crack on cable & no fibre break.

Cabled Optical Fibres Characteristics

The optical fibres are in accordance to the specifications ITU-T G.652D. Refer to specific data sheets for details.

Transmission Characteristics						
Fibre Type	Attenuation coefficient, dB/km (Average/Maximum)			PMD, ps/√km	PMD LDV, ps/√km	Cut-off Wavelength (lcc), nm 1310nm
	1310ON	1550ON	1625ON			
G652D**	≤ 0,35 / 0,36	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0 ,20	≤ 0,15	≤ 1260
G657A1	≤ 0,35 / 0,36	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0 ,20	≤ 0,15	≤ 1260

* This fibre is also available as a bend insensitive (Sterlite Tech's NOVA fibre)

Fibre Standard Colour Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Packing and Lengths

Packing: Wooden drums
Lengths (tolerance ±5%): 2km
Note - Customized drum lengths available on request.

Sheath printing details

STERLITE < Fibre Type ><Fibre Count><Product Type ><OFC Laser Symbol ><Telephone Symbol ><Month & Year of Production><Cable ID>< Meter Marking>

RIBBON-LITE®
Unitube Single Jacket

2d0144:DR144:W---S-

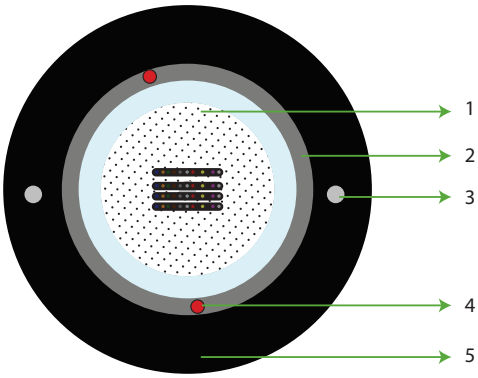
Product Details

Sterlite Tech™ RIBBON-LITE® Unitube Single Jacket Cable combines robust performance for duct installations with the productivity of high-count mass fusion splicing. The optical fibres are arranged into ribbon units by placing the fibres in a flat array of 12 color-coded fibres bonded together by a UV-curable matrix material. Embedded strength members along with the loose tube surrounded with dry water-swellable elements to prevent from longitudinal water ingress is covered with UV Stabilised PE sheath which makes the cable installation friendly.

Product Application

Ribbon cable design meets the application which requires delivering the highest fibre density in the most compact cable package possible. This cable offers an outstanding solution for demanding high-growth, high-bandwidth communications applications like campus, building, data centers, and equipment connections within cabinets, premise and outside plant applications. They allow OSP applications to flow seamlessly indoors, using a single cable and no splices.

Typical Construction of Cable



1. LOOSE TUBE WITH RIBBONS & GEL
2. WATER SWELLABLE TAPE
3. EMBEDDED STRENGTH MEMBER
4. RIPCORD(S)
5. OUTER SHEATH

Features & Benefits

- Available up to 144 fibre count in either single-mode or multi-mode optical fibres
- These cables have high fibre count leading to more efficient use of limited duct space
- Ribbon cable can be prepared and spliced much more rapidly
- Precise fibre and ribbon geometries result in excellent mass-fusion splicing yields
- Fibre ribbons are individually marked for easy identification
- These are easy to install due to dry water-blocking design
- Dry water-blocking technology for gel free core helps in quicker end preparation
- Easily removable rugged thermoplastic jacket
- Flexible, light weight, easy to handle & install
- Tensile and crush resistant
- UV protected
- Tightly controlled physical parameters
- Combination of fibre types available on request

Performance Standards

Cable complies to the latest issue of following main Standards IEC.60794 series, ANSI/ICEA S-87-640, Telcordia GR-20, ITU-T Recommendations

Specifications

Physical Characteristics					
Fibre Count		48	72	96	144
No of Ribbon		4	6	8	12
Fibres/ Ribbon		12	12	12	12
Nominal Cable Diameter (mm) ± 0.5mm		11.6	12.4	12.8	14.0
Nominal Cable Weight (kg/km) ± 10%		130	145	150	175
Mechanical and Environmental Characteristics*					
Test	Standard / Notes	Product Performance			
Max. Tensile Strength (N)	IEC-60794-1-21-E1	2000	2000	2000	2000
Bending Radius	IEC-60794-1-21-E11	Dynamic = 25D, Static = 20D			
Crush Resistance (N/100mm)	IEC-60794-1-21-E3	2000	2000	2000	2000
Impact strength (N.m)	IEC-60794-1-21-E4	25			
Torsion	IEC-60794-1-21-E7	± 180°			
Drip Test	IEC-60794-1-21-E14	1%			
Temperature Cycling	IEC-60794-1-22-F1	Installation: -20°C to +60°C	Operation: -30°C to +70°C	Storage: -40°C to +70°C	
Water Penetration	IEC-60794-1-22-F5B	1m water head, 3m samples, 24 hrs no water leakage			

** After the test, the change in attenuation shall be ≤ 0.05 dB/km. No damage or crack on cable & no fibre break.

Cabled Optical Fibres Characteristics

The optical fibres are in accordance to the specifications ITU-T G.652D. Refer to specific data sheets for details.

Transmission Characteristics						
Fibre Type	Attenuation coefficient, dB/km (Average/Maximum)			PMD, ps/√km	PMD LDV ps/√km	Cut-off Wavelength (λcc), nm 1310nm
	1310nm	1550nm	1625nm			
G652D**	≤ 0,35 / 0,36	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0 ,20	≤ 0,15	≤ 1260

** This fibre is also available as a bend insensitive (Sterlite Tech's NOVA fibre)

Fibre Standard Colour Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Packing and Lengths

Packing: Wooden drums
Lengths (tolerance ±5%): 2km, 4km
Note - Customised drum lengths available on request.

Sheath printing details

STERLITE < Fibre Type ><Fibre Count><Product Type ><OFC Laser Symbol ><Telephone Symbol ><Month & Year of Production><Cable ID>< Meter Marking>

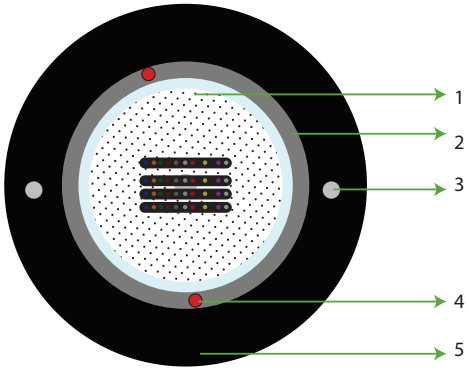
RIBBON-LITE® Unitube Single Jacket Steel Tape Armored

2d0144:BR144:W-TRS-

Product Details

Sterlite Tech™ RIBBON-LITE® Unitube Single Jacket Steel Tape Armored Cable combines robust performance for duct as well as direct installations with the productivity of high-count mass fusion splicing. The optical fibres are arranged into ribbon units by placing the fibres in a flat array of 12 colour-coded fibres bonded together by a UV-curable matrix material. Embedded strength members along with the loose tube surrounded with dry water-swellable elements to prevent from longitudinal water ingress Corrugated Steel Tape armor surrounds the cable core with thermoplastic jacket placed over the armor layer making the cable robust and installation friendly.

Typical Construction of Cable



1. LOOSE TUBE WITH RIBBONS & GEL
2. CORRUGATED STEEL TAPE
3. EMBEDDED STRENGTH MEMBER
4. RIPCORD(S)
5. OUTER SHEATH

Product Application

Ribbon cable design meets the application which requires delivering the highest fibre density in the most compact cable package possible. This cable offers an outstanding solution for demanding high-growth, high-bandwidth communications applications like campus, building, data centers, and equipment connections within cabinets, premise and outside plant applications. These allow OSP applications to flow seamlessly indoors, using a single cable and no splices.

Features & Benefits

- Available up to 144 fibre count in either single-mode or multi-mode optical fibres
- These cables have high fibre count leading to more efficient use of limited duct space
- Ribbon cable can be prepared and spliced much more rapidly
- Precise fibre and ribbon geometries result in excellent mass-fusion splicing yields
- Fibre ribbons are individually marked for easy identification
- These are easy to install due to dry water-blocking design
- Steel tape adds to crush resistance as well as can be used as a cable locator after installation
- Dry water-blocking technology for gel free core helps in quicker end preparation
- Easily removable rugged thermoplastic jacket
- Flexible, light weight, easy to handle & install
- Tensile and crush resistant
- UV protected
- Tightly controlled physical parameters
- Combination of fibre types available on request

Performance Standards

Cable complies to the following main Standards IEC.60794 series, ANSI/ICEA S-87-640, Telcordia GR-20, ITU-T Recommendations

Specifications

Physical Characteristics					
Fibre Count		48	72	96	144
No of Ribbon		4	6	8	12
Fibres/ Ribbon		12	12	12	12
Nominal Cable Diameter (mm) ± 0.5mm		13.5	13.8	14.2	15.5
Nominal Cable Weight (kg/km) ± 10%		145	150	160	185
Mechanical and Environmental Characteristics*					
Test	Standard / Notes	Product Performance			
Max. Tensile Strength (N)	IEC-60794-1-21-E1	2000	2000	2000	2000
Bending Radius	IEC-60794-1-21-E11	Dynamic = 25D, Static = 20D			
Crush Resistance (N/100mm)	IEC-60794-1-21-E3	2000	2000	2000	2000
Impact strength (N.m)	IEC-60794-1-21-E4	25			
Torsion	IEC-60794-1-21-E7	± 180°			
Drip Test	IEC-60794-1-21-E14	30 cm, 70°C, 24 hr			
Temperature Cycling	IEC-60794-1-22-F1	Installation: -20°C to +60°C	Operation: -30°C to +70°C	Storage: -40°C to +70°C	
Water Penetration	IEC-60794-1-22-F5B	1m water head, 3m samples, 24 hrs no water leakage			

** After the test, the change in attenuation shall be ≤ 0.05 dB/km. No damage or crack on cable & no fibre break.

Cabled Optical Fibres Characteristics

The optical fibres are in accordance to the specifications ITU-T G.652D. Refer to specific data sheets for details.

Transmission Characteristics						
Fibre Type	Attenuation coefficient, dB/km (Average/Maximum)			PMD, ps/√km	PMD LDV ps/√km	Cut-off Wavelength (λcc), nm 1310nm
	1310nm	1550nm	1625nm			
G652D**	≤ 0,35 / 0,36	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0,20	≤ 0,15	≤ 1260

** This fibre is also available as a bend insensitive (Sterlite Tech's NOVA fibre)

Fibre Standard Colour Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Packing and Lengths

Packing: Wooden drums
Lengths (tolerance ±5%): 2km, 4km
Note - Customised drum lengths available on request.

Sheath printing details

STERLITE < Fibre Type ><Fibre Count><Product Type ><OFC Laser Symbol ><Telephone Symbol ><Month & Year of Production><Cable ID>< Meter Marking>

Yogalite
Fibre Optic Cable

YogaLite™ Single Jacket Duct for Access Networks

2d0864:DM012:X---SE

Patent numbers

- 201621036746
- EP 16161137.1
- EP 16161152.0
- IN 2208/MUM/2015

Product Details

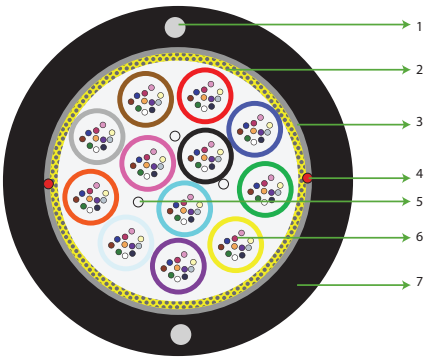
YogaLite™ Single Jacket Duct Cable by Sterlite Tech™ is based on micro-module technology to create an optimized design suitable for use in duct scenarios. The micro-module unit consist of groups of fibres protected by an easily strippable and flexible thermoplastic material and filled with thixotropic compound. These microstructures are surrounded with water swelling elements to protect against moisture ingress, and are constrained in a thermoplastic sheath, which is provided with embedded strength members to protect from buckling.

Product Application

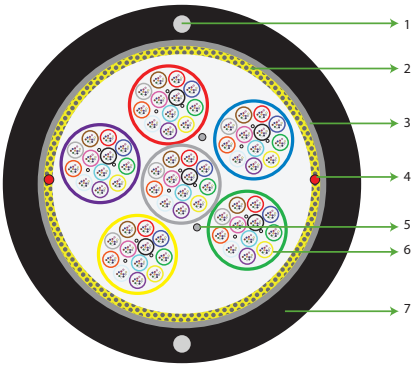
The YogaLite™ Single Jacket Fibre Optic Cable is intended for external use. The universal design is suited for use in most network arenas, including backbone, access and distribution. The compact micro-module construction with fibre counts ranging from 6 to 864 fibres offers a versatile and compact construction with the benefits of quick fibre preparation ready for installation.

The cables are ideally suited to installation within ducts using blown on pulling techniques.

Typical Construction of Cable



6F to 576F

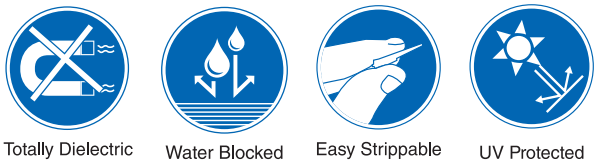


720F to 864F

1. EMBEDDED STRENGTH MEMBERS
2. ARAMID YARNS
3. CORE WRAPPING WITH WATER SWELLABLE TAPE
4. RIPCORD(S)
5. WS YARNS
6. SEMI DRY MICROMODULES WITH FIBRES
7. OUTER SHEATH

Features & Benefits

- Available in Fibre types SM G652D Nova, G657.A2. Other fibre options in either single-mode or multi-mode optical fibres are available upon request
- Reduced diameter micro- modules manufactured from soft and flexible elastomeric material
- Diametrically opposed embedded strength members provides excellent crush protection performance
- Fibre micro-modules are kink resistant and easily removed without the need for tools
- Fast and easy midspan access
- Ultra-compactness, easier storage and faster installation
- Longitudinal moisture protection is enabled by water blocking compounds in tube and core
- UV protected
- Tightly controlled physical parameters
- Combination of fibre types available on request



Performance Standards

Cable Complies to the following main Standards IEC.60794 series, EN 60794, ANSI/ICEA S-87-640, Telcordia GR-20, ITU-T Recommendations

Specifications

12F/Module

Physical Characteristics											
Fibre Count	12	24	48	72	96	144	288	432	576	720	864
Number of Fibres in Each Micromodules	12										
Number of Micromodule in each cable	1	2	4	6	8	12	24	36	48	60	72
Nominal Cable Diameter (mm) ± 0.5mm	6.5	7.4	8.5	9.5	10.5	11.5	13.5	15.5	17.0	18.2	19.5
Nominal Cable Weight (kg/km) ± 10%	33	42	50	70	82	94	140	180	210	245	275

Mechanical and Environmental Characteristics*												
Test	Standard / Notes	Product Performance										
Max Tensile strength Tm (daN)	IEC-60794-1-21-E1	80	100	100	160	220	220	270	280	300	350	400
Impact resistance (N.m)	IEC-60794-1-21-E4	5							10			
Cut-through resistance (N)	IEC-60794-1-21-E12	150							200			
Static bend radius (mm)	IEC-60794-1-21-E11	60	85	85	100	120	120	140	170	190	200	220
Kink radius (mm)	IEC-60794-1-21-E10	30	45	45	50	60	60	70	85	95	100	110
Torsion	IEC-60794-1-21-E7	±180°/m, L=40N		±180°/m, L=60N					±180°/m, L=120N		±180°/m, L=120N	
Max Crushing resistance (daN/cm)	IEC 60794-1-2 1- E3	20 25							25 40			
Temperature Cycling	IEC-60794-1-22-F1	Installation: -5°C to +45°C			Operation: -30°C to +70°C				Storage: -40°C to +70°C			
Water Penetration	IEC-60794-1-22-F5B	1m water head, 3m samples, 24 hrs no water leakage										

** After the test, the change in attenuation shall be ≤ 0.05 dB/km.No damage or crack on cable & no fibre break.

6F/Module

Physical Characteristics								
Fibre Count	6	12	24	48	72	96	144	288
Number of Fibres in Each Micromodules	6							
Number of Micromodule in each cable	1	2	4	8	12	16	24	48
Nominal Diameter (mm) + 0.5mm	6	7.0	8.0	9.0	10.0	11.0	12.0	15.0
Nominal Weight (kg/km) + 10%	33	40	45	56	75	92	105	165

Mechanical and Environmental Characteristics									
Test	Standard / Notes	Product Performance							
Max Tensile strength Tm (daN)	IEC-60794-1-21-E1	80	100	100	160	220	220	270	280
Impact resistance (N.m)	IEC-60794-1-21-E4	5							10
Cut-through resistance (N)	IEC-60794-1-21-E12	150							200
Static bend radius (mm)	IEC-60794-1-21-E11	60	85	85	100	120	120	140	170
Kink radius (mm)	IEC-60794-1-21-E10	30	45	45	50	60	60	70	85
Torsion	IEC-60794-1-21-E7	±180°/m, L=40N			±180°/m, L=60N				±180°/m, L=60N
Max Crushing resistance (daN/cm)	IEC 60794-1-2 1- E3	20 25							25 40
Temperature Cycling	IEC-60794-1-22-F1	Installation: -5°C to +45°C			Operation: -30°C to +70°C				Storage: -40°C to +70°C
Water Penetration	IEC-60794-1-22-F5B	1m water head, 3m samples, 24 hrs no water leakage							

** After the test, the change in attenuation shall be ≤ 0.05 dB/km.No damage or crack on cable & no fibre break.

Optical Fibres Characteristics

The optical fibres are in accordance to the specifications ITU-T G.652D andITU-T G.657A2. Refer to specific data sheets for details.

Cabled Optical Fibres Characteristics

The optical fibres are in accordance to the specifications ITU-T G.652D Nova and ITU-T G.657A2. Refer to specific data sheets for details.

Transmission Characteristics						
Fibre Type	Attenuation coefficient, dB/km (Average/Maximum)			PMD, ps/√km	PMD LDV ps/√km	Cut-off Wavelength (λcc), nm 1310nm
	1310nm	1550nm	1625nm			
G652D Nova fibre	≤ 0,35 / 0,36	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0 ,20	≤ 0.10	≤ 1260
G657A2 fibre	≤ 0,35 / 0,36	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0 ,20	≤ 0.15	≤ 1260

Fibre Standard Colour Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Tube Standard Color Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

* For more than 12 modules, single or double or triple or four stripes marking are done as per EIA/TIA 598.

Packing and Lengths

Packing: Wooden drums
Lengths (tolerance ±5%): 2km
Note - Customised drum lengths available on request.

Sheath printing details

STERLITE < Fibre Type ><Fibre Count><Product Type ><OFC Laser Symbol ><Telephone Symbol ><Month & Year of Production><Cable ID>< Meter Marking>

YogaLite™ Single Jacket Overhead for Access Networks

2d0144:DM012:X---SE

Product Details

YogaLite™ Single Jacket Duct Cable by Sterlite Tech™ is based on micro-module technology to create an optimized design suitable for use in ducts or overhead scenarios. The micro-module unit consist of groups of fibres protected by an easily strippable and flexible thermoplastic material and filled with thixotropic compound. These microstructures are surrounded with water swelling elements to protect against moisture ingress and are constrained in a thermoplastic sheath which is provided with embedded strength members to protect from buckling.

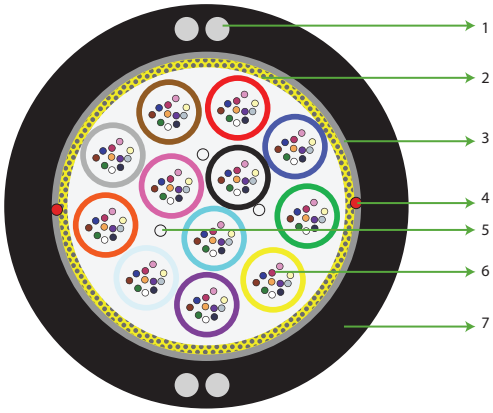
Product Application

The YogaLite™ Single Jacket Fibre Optic Cable is intended for external use only. The universal design is suited for use in most network arenas, including backbone, access and distribution. The compact micro-module construction with fibre counts ranging from 6 to 144 fibres enables offers a versatile and compact construction with the benefits of quick fibre preparation ready for installation.
The cables are ideally suited to installation within ducts using blown on pulling techniques; also for overhead scenarios such as lashed or short length unsupported spans

Features & Benefits

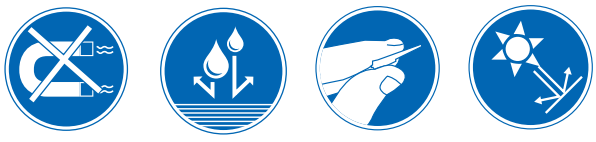
- Available in Fibre types SM G652D Nova, G657.A2. Other fibre options in either single-mode or multi-mode optical fibres are available upon request.
- Reduced diameter micro- modules manufactured from soft and flexible elastomeric material.
- Diametrically opposed embedded strength members provides excellent crush protection performance.
- Fibre micro-modules are kink resistant and easily removed without the need for tools.
- Fast and easy midspan access.
- Ultra-compactness, easier storage and faster installation.
- Longitudinal moisture protection is enabled by water blocking compounds in tube and core.
- UV protected.
- Tightly controlled physical parameters.
- Combination of fibre types available on request

Typical Construction of Cable



6F to 144F

1. EMBEDDED STRENGTH MEMBERS
2. ARAMID YARNS
3. CORE WRAPPING WITH WATER SWELLABLE TAPE
4. RIPCORD(S)
5. WS YARNS
6. SEMI DRY MICROMODULES WITH FIBRES
7. OUTER SHEATH



Performance Standards

Cable Complies to the following main Standards IEC.60794 series, EN 60794, ANSI/ICEA S-87-640, Telcordia GR-20, ITU-T Recommendations

Specifications

12F/Module

Physical Characteristics							
Fibre Count		12	24	48	72	96	144
Number of Fibres in Each Micromodules		12					
Number of Micromodule in each cable		1	2	4	6	8	12
Nominal Cable Diameter (mm) ± 0.5mm		6.0	7.5	8.5	9.5	10.5	11.5
Nominal Cable Weight (kg/km) ± 10%		31	45	69	77	86	98
Mechanical and Environmental Characteristics							
Test	Standard / Notes	Product Performance					
Max Tensile strength Tm (daN)	IEC-60794-1-21-E1	80	120	220	220	270	270
Impact resistance (N.m)	IEC-60794-1-21-E4	5		10			
Cut-through resistance (N)	IEC-60794-1-21-E12	150				200	
Static bend radius (mm)	IEC-60794-1-21-E11	60	80	120	120	135	135
Kink radius (mm)	IEC-60794-1-21-E10	30	40	60	60	65	65
Torsion	IEC-60794-1-21-E7	±180°/m, L=40N		±180°/m, L=100N			
Max Crushing resistance (daN/cm)	IEC 60794-1-21- E3	20 30		30 40			
Aeolian vibrations (Waves)	IEC 60794-1-21- E19	10		3			
Resistance of anchor clamps		80	120	220	220	270	270
Temperature Cycling	IEC-60794-1-22-F1	Installation: -5°C to +45°C		Operation: -30°C to +70°C		Storage: -40°C to +70°C	
Water Penetration	IEC-60794-1-22-F5B	1m water head, 3m samples, 24 hrs no water leakage					

** After the test, the change in attenuation shall be ≤ 0.05 dB/km. No damage or crack on cable & no fibre break.

6F/Module

Physical Characteristics								
Fibre Count		6	12	24	48	72	96	144
Number of Fibres in Each Micromodules		6						
Number of Micromodule in each cable		1	2	4	8	12	16	24
Nominal Cable Diameter (mm) ± 0.5mm		6	7.0	8.0	9.0	10.0	11.0	12.0
Nominal Cable Weight (kg/km) ± 10%		30	47	55	80	88	100	116
Mechanical and Environmental Characteristics								
Test	Standard / Notes	Product Performance						
Max Tensile strength Tm (daN)	IEC-60794-1-21-E1	80	100	170	270	270	320	320
Impact resistance (N.m)	IEC-60794-1-21-E4	5					10	
Cut-through resistance (N)	IEC-60794-1-21-E12	150					200	
Static bend radius (mm)	IEC-60794-1-21-E11	60	80	90	90	110	130	130
Kink radius (mm)	IEC-60794-1-21-E10	30	40	45	45	55	62	62
Torsion	IEC-60794-1-21-E7	±180°/m, L=40N			±180°/m, L=60N			
Max Crushing resistance (daN/cm)	IEC 60794-1-21- E3	20 25			25 35			
Aeolian vibrations (Waves)	IEC 60794-1-21- E19	10	3					
Resistance of anchor clamps		80	100	170	270	270	320	320
Temperature Cycling	IEC-60794-1-22-F1	Installation: -5°C to +45°C		Operation: -30°C to +70°C		Storage: -40°C to +70°C		
Water Penetration	IEC-60794-1-22-F5B	1m water head, 3m samples, 24 hrs no water leakage						

** After the test, the change in attenuation shall be ≤ 0.05 dB/km. No damage or crack on cable & no fibre break.

Cabled Optical Fibres Characteristics

The optical fibres are in accordance to the specifications ITU-T G.652D Nova and ITU-T G.657A2. Refer to specific data sheets for details.

Transmission Characteristics						
Fibre Type	Attenuation coefficient, dB/km (Average/Maximum)			PMD, ps/√km	PMD LDV ps/√km	Cut-off Wavelength (λcc), nm 1310nm
	1310nm	1550nm	1625nm			
G652D Nova fibre	≤ 0,35 / 0,36	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0 ,20	≤ 0.10	≤ 1260
G657A2 fibre	≤ 0,35 / 0,36	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0 ,20	≤ 0.15	≤ 1260

Fibre Standard Colour Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Tube Standard Color Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

* For more than 12 modules, single or double stripes marking are done as per EIA/TIA 598.

Packing and Lengths

Packing: Wooden drums
Lengths (tolerance ±5%): 2km
Note - Customised drum lengths available on request.

Sheath printing details

STERLITE < Fibre Type ><Fibre Count><Product Type ><OFC Laser Symbol ><Telephone Symbol ><Month & Year of Production><Cable ID>< Meter Marking>

YogaLite™ Single Jacket for Transport Networks

2d0288:DM012:X---SE

Product Details

YogaLite™ Single Jacket Duct Cable for Transport Networks by Sterlite Tech™ is based on micro-module technology to create an optimized design suitable for use in ducts scenarios. The micro-module unit consist of groups of fibres protected by an easily strippable and flexible thermoplastic material and filled with thixotropic compound. These microstructures are surrounded with water swelling elements to protect against moisture ingress and are constrained in a thermoplastic sheath which is provided with embedded strength members to protect from buckling.

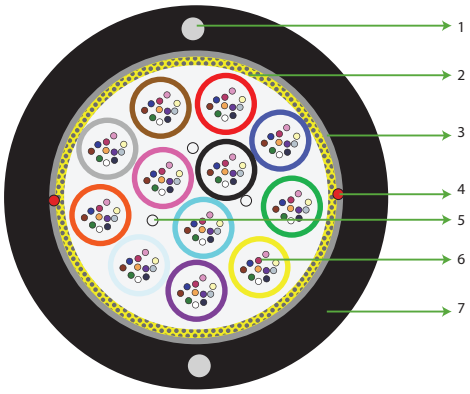
Product Application

The YogaLite™ Single Jacket Fibre Optic Cable is intended for external use only. The universal design is suited for use for transport networks. The compact micro-module construction with fibre counts ranging from 12 to 288 fibres enables offers a versatile and compact construction with the benefits of quick fibre preparation ready for installation.
The cables are ideally suited to installation within ducts using blown on pulling techniques

Features & Benefits

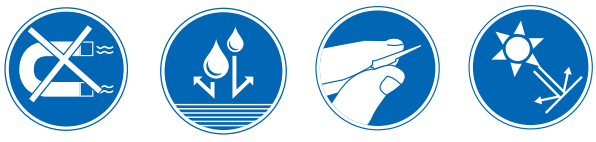
- Available in Fibre types SM G652D Nova, G657.A2. Other fibre options in either Single-mode or multi-mode optical fibres are available upon request.
- Reduced diameter micro- modules manufactured from soft and flexible elastomeric material.
- Diametrically opposed embedded strength members provides excellent crush protection performance.
- Fibre micro-modules are kink resistant and easily removed without the need for tools.
- Fast and easy midspan access.
- Ultra-compactness, easier storage and faster installation.
- Longitudinal moisture protection is enabled by water blocking compounds in tube and core.
- UV protected.
- Tightly controlled physical parameters.
- Combination of fibre types available on request

Typical Construction of Cable



12F to 288F

1. EMBEDDED STRENGTH MEMBERS
2. ARAMID YARNS
3. CORE WRAPPING WITH WATER SWELLABLE TAPE
4. RIPCORD(S)
5. WS YARNS
6. SEMI DRY MICROMODULES WITH FIBRES
7. OUTER SHEATH



Performance Standards

Cable Complies to the following main Standards IEC.60794 series, EN 60794, ANSI/ICEA S-87-640, Telcordia GR-20, ITU-T Recommendations

Specifications 12F/Module

Physical Characteristics							
Fibre Count	12	24	48	72	96	144	288
Number of Fibres in Each Micromodules	12						
Number of Micromodule in each cable	1	2	4	6	8	12	24
Nominal Cable Diameter (mm) ± 0.5mm	7.6	9.0	9.5	10.0	10.6	11.6	13.8
Nominal Cable Weight (kg/km) ± 10%	51	63	69	77	86	102	140

Mechanical and Environmental Characteristics								
Test	Standard / Notes	Product Performance						
Max Tensile strength Tm (daN)	IEC-60794-1-21-E1	220	220	220	220	270	270	350
Impact resistance (N.m)	IEC-60794-1-21-E4	5						
Cut-through resistance (N)	IEC-60794-1-21-E12	300						
Static bend radius (mm)	IEC-60794-1-21-E11	90	110	120	120	140	140	160
Kink radius (mm)	IEC-60794-1-21-E10	45	55	60	60	70	70	80
Torsion	IEC-60794-1-21-E7	±180°/m, L=100N			±180°/m, L=200N			
Max Crushing resistance (daN/cm)	IEC 60794-1-21- E3	20 25						25 40
Temperature Cycling	IEC-60794-1-22-F1	Installation: -5°C to +45°C		Operation: -30°C to +70°C		Storage: -40°C to +70°C		
Water Penetration	IEC-60794-1-22-F5B	1m water head, 3m samples, 24 hrs no water leakage						

** After the test, the change in attenuation shall be ≤ 0.05 dB/km. No damage or crack on cable & no fibre break.

Cabled Optical Fibres Characteristics

The optical fibres are in accordance to the specifications ITU-T G.652D Nova and ITU-T G.657A2. Refer to specific data sheets for details.

Transmission Characteristics						
Fibre Type	Attenuation coefficient, dB/km (Average/Maximum)			PMD, ps/√km	PMD LDV ps/√km	Cut-off Wavelength (λcc), nm 1310nm
	1310nm	1550nm	1625nm			
G652D Nova fibre	≤ 0,35 / 0,36	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0 ,20	≤ 0.10	≤ 1260
G657A2 fibre	≤ 0,35 / 0,36	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0 ,20	≤ 0.15	≤ 1260

Fibre Standard Colour Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Tube Standard Color Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

* For more than 12 modules, single or double stripes marking are done as per EIA/TIA 598.

Packing and Lengths

Packing: Wooden drums
Lengths (tolerance ±5%): 2km
Note - Customised drum lengths available on request.

Sheath printing details

STERLITE < Fibre Type ><Fibre Count><Product Type ><OFC Laser Symbol ><Telephone Symbol ><Month & Year of Production><Cable ID>< Meter Marking>

YogaLite™ Double Jacket Direct Buried for Transport Networks

2d0144:BM012:X-GRDE

Product Details

YogaLite™ Double Jacket Direct Buried Cable by Sterlite Tech™ is based on micro-module technology to create an optimized design suitable for use in underground installations. The micro-module unit consist of groups of fibres protected by an easily strippable and flexible thermoplastic material and filled with thixotropic compound. These microstructures are surrounded with water swelling elements to protect against moisture ingress and are constrained in a thermoplastic sheath which is provided with embedded strength members to protect from buckling.
Glass roving yarns are distributed over the inner sheath and an overall polyethylene jacket affords the cable both mechanical and environmental protection.

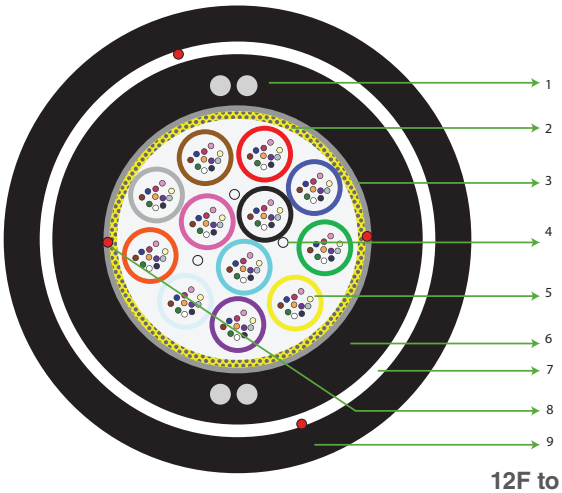
Product Application

The YogaLite™ double Jacket Fibre Optic Cable is intended for external use only. The universal design is suited for use for direct burial in transport networks. The compact micro-module construction with fibre counts ranging from 12 to 144 fibres enables offers a versatile and compact construction with the benefits of quick fibre preparation ready for installation.
The cables are ideally suited to installation within ducts using blown or pulling techniques and direct buried using plowing or trenching techniques

Features & Benefits

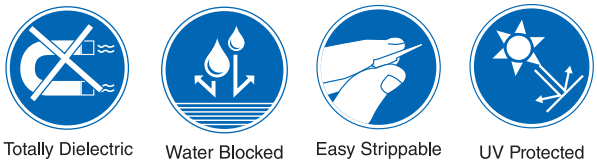
- Available in Fibre types SM G652D Nova, G657.A2. Other fibre options in either single-mode or multi-mode optical fibres are available upon request.
- Reduced diameter micro- modules manufactured from soft and flexible elastomeric material.
- Double Jacket and dielectric armoring provides additional protection against crush and impact and also protects against rodent attacks.
- Diametrically opposed embedded strength members provides excellent crush protection performance.
- Fibre micro-modules are kink resistant and easily removed without the need for tools.
- Fast and easy midspan access.
- Ultra-compactness, easier storage and faste installation.
- Longitudinal moisture protection is enabled by water blocking compounds in tube and core.
- UV protected.
- Tightly controlled physical parameters.
- Combination of fibre types available on request

Typical Construction of Cable



12F to 144F

1. EMBEDDED STRENGTH MEMBER
2. ARAMID YARNS
3. CORE WRAPPING WITH WATER SWELLABLE TAPE
4. WS YARNS
5. SEMI DRY MICROMODULES WITH FIBRES
6. INNER SHEATH
7. WBT WITH GLASS YARN
8. RIPCORD(S)
9. OUTER SHEATH



Performance Standards

Cable Complies to the following main Standards IEC.60794 series, EN 60794, ANSI/ICEA S-87-640, Telcordia GR-20, ITU-T Recommendations

Specifications 12F/Module

Physical Characteristics							
Fibre Count		12	24	48	72	96	144
Number of Fibres in Each Micromodules		12					
Number of Micromodule in each cable		1	2	4	6	8	12
Nominal Cable Diameter (mm) ± 0.5mm		11.2	12.2	12.6	13.6	14.2	15.4
Nominal Cable Weight (kg/km) ± 10%		98	113	123	142	155	178
Mechanical and Environmental Characteristics							
Test	Standard / Notes	Product Performance					
Max Tensile strength Tm (daN)	IEC-60794-1-21-E1	200	200	220	220	250	250
Impact resistance (N.m)	IEC-60794-1-21-E4	10					
Cut-through resistance (N)	IEC-60794-1-21-E12	500					
Static bend radius (mm)	IEC-60794-1-21-E11	110	110	130	130	160	160
Kink radius (mm)	IEC-60794-1-21-E10	70	70	80	80	100	100
Torsion	IEC-60794-1-21-E7	±180°/m, L=200N					
Max Crushing resistance (daN/cm)	IEC 60794-1-21- E3	45 55					
Temperature Cycling	IEC-60794-1-22-F1	Installation: -5°C to +45°C		Operation: -30°C to +70°C		Storage: -40°C to +70°C	
Water Penetration	IEC-60794-1-22-F5B	1m water head, 3m samples, 24 hrs no water leakage					

** After the test, the change in attenuation shall be ≤ 0.05 dB/km. No damage or crack on cable & no fibre break.

Cabled Optical Fibres Characteristics

The optical fibres are in accordance to the specifications ITU-T G.652D Nova and ITU-T G.657A2. Refer to specific data sheets for details.

Transmission Characteristics						
Fibre Type	Attenuation coefficient, dB/km (Average/Maximum)			PMD, ps/√km	PMD LDV ps/√km	Cut-off Wavelength (λcc), nm 1310nm
	1310nm	1550nm	1625nm			
G652D Nova fibre	≤ 0,35 / 0,36	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0 ,20	≤ 0.10	≤ 1260
G657A2 fibre	≤ 0,35 / 0,36	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0 ,20	≤ 0.15	≤ 1260

Fibre Standard Colour Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Tube Standard Color Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Packing and Lengths

Packing: Wooden drums
Lengths (tolerance ±5%): 2km
Note - Customised drum lengths available on request.

Sheath printing details

STERLITE < Fibre Type ><Fibre Count><Product Type ><OFC Laser Symbol ><Telephone Symbol ><Month & Year of Production><Cable ID>< Meter Marking>

YogaLite™ Double Jacket FRP Armored for Transport Networks

2d0144:DM012:X-FRDE

Product Details

YogaLite™ Double Jacket Aerial, duct and direct buried Cable by Sterlite Tech™ is based on micro-module technology to create an optimized design suitable for use in ducts or overhead scenarios. The micro-module unit consist of groups of fibres protected by an easily strippable and flexible thermoplastic material and filled with thixotropic compound. These microstructures are surrounded with water swelling elements to protect against moisture ingress and are constrained in a thermoplastic sheath which is provided with embedded strength members to protect from buckling.

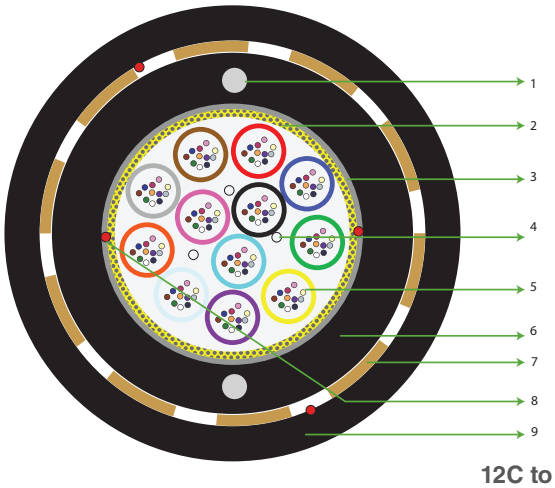
Product Application

The YogaLite™ double Jacket Fibre Optic Cable is intended for external use only. The universal design is suited for use for multipurpose installation (overhead, direct buried. In ducts) in transport networks. The compact micro-module construction with fibre counts ranging from 12 to 144 fibres enables offers a versatile and compact construction with the benefits of quick fibre preparation ready for installation.
The cables are ideally suited to installation within ducts using blown or pulling techniques and direct buried using plowing or trenching techniques, also for overhead scenarios such as lashed or short length unsupported spans

Features & Benefits

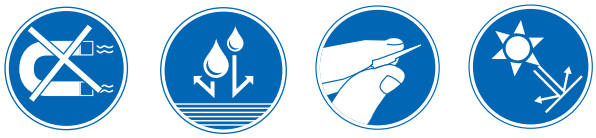
- Available in Fibre types SM G652D Nova, G657.A2. Other fibre options in either single-mode or multi-mode optical fibres are available upon request.
- Reduced diameter micro- modules manufactured from soft and flexible elastomeric material.
- Double Jacket and FRP armoring is designed to be resistant to gunshots and rodents
- Diametrically opposed embedded strength members provides excellent crush protection performance.
- Fibre micro-modules are kink resistant and easily removed without the need for tools.
- Fast and easy midspan access.
- Ultra-compactness, easier storage and faster installation.
- Longitudinal moisture protection is enabled by water blocking compounds in tube and core.
- UV protected.
- Tightly controlled physical parameters.
- Combination of fibre types available on request

Typical Construction of Cable



12C to 144F

1. EMBEDDED STRENGTH MEMBER
2. ARAMID YARNS
3. CORE WRAPPING WITH WATER SWELLABLE TAPE
4. WS YARNS
5. SEMI DRY MICROMODULES WITH FIBRES
6. INNER SHEATH
7. WBT WITH FLAT FRP ARMORING
8. RIPCORD(S)
9. OUTER SHEATH



Performance Standards

Cable Complies to the following main Standards IEC.60794 series, EN 60794, ANSI/ICEA S-87-640, Telcordia GR-20, ITU-T Recommendations

Specifications 12F/Module

Physical Characteristics						
Fibre Count	12	24	48	72	96	144
Number of Fibres in Each Micromodules	12					
Number of Micromodule in each cable	1	2	4	6	8	12
Nominal Cable Diameter (mm) ± 0.5mm	12.3	13.0	13.4	14.5	15.3	16.0
Nominal Cable Weight (kg/km) ± 10%	133	148	154	176	196	214

Mechanical and Environmental Characteristics							
Test	Standard / Notes	Product Performance					
Max Tensile strength Tm (daN)	IEC-60794-1-21-E1	400	400	400	400	500	500
Maximum operating tensile strength Tm (daN)		200	200	200	200	200	200
Impact resistance (N.m)	IEC-60794-1-21-E4	10					
Cut-through resistance (N)	IEC-60794-1-21-E12	500	500	500	500	500	500
Static bend radius (mm)	IEC-60794-1-21-E11	140	140	150	150	160	160
Kink radius (mm)	IEC-60794-1-21-E10	100	100	110	110	120	120
Torsion	IEC-60794-1-21-E7	±180°/m, L=200N					
Max Crushing resistance (daN/cm)	IEC 60794-1-21- E3	45 55					
Temperature Cycling	IEC-60794-1-22-F1	Installation: -5°C to +45°C		Operation: -30°C to +70°C		Storage: -40°C to +70°C	
Water Penetration	IEC-60794-1-22-F5B	1m water head, 3m samples, 24 hrs no water leakage					

** After the test, the change in attenuation shall be ≤ 0.05 dB/km. No damage or crack on cable & no fibre break.

Cabled Optical Fibres Characteristics

The optical fibres are in accordance to the specifications ITU-T G.652D Nova and ITU-T G.657A2. Refer to specific data sheets for details.

Transmission Characteristics						
Fibre Type	Attenuation coefficient, dB/km (Average/Maximum)			PMD, ps/√km	PMD LDV ps/√km	Cut-off Wavelength (λcc), nm 1310nm
	1310nm	1550nm	1625nm			
G652D Nova fibre	≤ 0,35 / 0,36	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0 ,20	≤ 0.10	≤ 1260
G657A2 fibre	≤ 0,35 / 0,36	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0 ,20	≤ 0.15	≤ 1260

Fibre Standard Colour Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Tube Standard Color Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Packing and Lengths

Packing: Wooden drums
Lengths (tolerance ±5%): 2km
Note - Customised drum lengths available on request.

Sheath printing details

STERLITE < Fibre Type ><Fibre Count><Product Type ><OFC Laser Symbol ><Telephone Symbol ><Month & Year of Production><Cable ID>< Meter Marking>

YogaLite™ Single Jacket for Access Networks Adapted for Midspan Access

2d0144:DM012:X---SE

Product Details

YogaLite™ Single Jacket cable for duct installations with easy midspan access networks by Sterlite Tech™ is based on micro-module technology to create an optimized design suitable for use in ducts scenarios. The micro-module units consist of groups of fibres protected by an easily strippable and flexible thermoplastic material and filled with thixotropic compound. These microstructures are surrounded with water swelling elements to protect against moisture ingress, and are constrained in a polyethylene sheath, which is provided with embedded strength members to protect from against buckling.

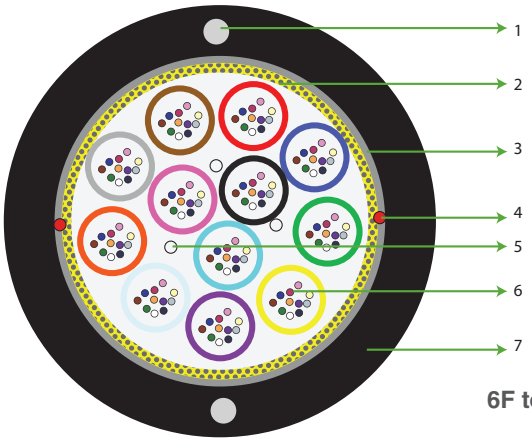
Product Application

The YogaLite™ Single Jacket Fibre Optic Cable is intended for external use only. The universal design is suited for use in most network arenas, including access. The compact micro-module construction with fibre counts ranging from 6 to 144 fibres enables offers a versatile and compact construction with the benefits of quick fibre preparation ready for installation.
The cables are ideally suited to installation within ducts using blown or pulling techniques.

Features & Benefits

- Available in Fibre types SM G652D Nova, G657.A2. Other fibre options in either single-mode or multi-mode optical fibres are available upon request.
- Designed for 1.5metres easy midspan access of micromodules
- Reduced diameter micro- modules manufactured from soft and flexible elastomeric material.
- Diametrically opposed embedded strength members provides excellent crush protection performance.
- Fibre micro-modules are kink resistant and easily removed without the need for tools.
- Ultra-compactness, easier storage and faster installation.
- Longitudinal moisture protection is enabled by water blocking compounds in tube and core.
- UV protected.
- Tightly controlled physical parameters.
- Combination of fibre types available on request

Typical Construction of Cable



6F to 144F

1. EMBEDDED STRENGTH MEMBERS
2. ARAMID YARNS
3. CORE WRAPPING WITH WATER SWELLABLE TAPE
4. RIPCORD(S)
5. WS YARNS
6. SEMI DRY MICROMODULES WITH FIBRES
7. OUTER SHEATH

Performance Standards

Cable Complies to the following main Standards IEC.60794 series, EN 60794, ANSI/ICEA S-87-640, Telcordia GR-20, ITU-T Recommendations

Specifications

12F/Module

Physical Characteristics							
Fibre Count		12	24	48	72	96	144
Number of Fibres in Each Micromodules		12					
Number of Micromodule in each cable		1	2	4	6	8	12
Nominal Cable Diameter (mm) ± 0.5mm		7.4	8.9	9.2	10.0	10.6	12.0
Nominal Cable Weight (kg/km) ± 10%		43	55	61	69	77	98
Mechanical and Environmental Characteristics							
Test	Standard / Notes	Product Performance					
Max Tensile strength Tm (daN)	IEC-60794-1-21-E1	100	100	100	100	100	100
Impact resistance (N.m)	IEC-60794-1-21-E4	3					
Cut-through resistance (N)	IEC-60794-1-21-E12	150					
Static bend radius (mm)	IEC-60794-1-21-E11	140	140	140	140	140	140
Kink radius (mm)	IEC-60794-1-21-E10	70	70	70	70	70	70
Max Crushing resistance (daN/cm)	IEC 60794-1-21- E3	20 25					
Temperature Cycling	IEC-60794-1-22-F1	Installation: -5°C to +45°C		Operation: -30°C to +70°C		Storage: -40°C to +70°C	
Water Penetration	IEC-60794-1-22-F5B	1m water head, 3m samples, 24 hrs no water leakage					

** After the test, the change in attenuation shall be ≤ 0.05 dB/km. No damage or crack on cable & no fibre break.

6F/Module

Physical Characteristics						
Fibre Count		6	12	24	48	72
Number of Fibres in Each Micromodules		12				
Number of Micromodule in each cable		1	2	4	8	12
Nominal Cable Diameter (mm) ± 0.5mm		7.2	8.5	8.8	9.8	10.6
Nominal Cable Weight (kg/km) ± 10%		41	51	56	67	77
Mechanical and Environmental Characteristics						
Test	Standard / Notes	Product Performance				
Max Tensile strength Tm (daN)	IEC-60794-1-21-E1	100	100	100	100	100
Impact resistance (N.m)	IEC-60794-1-21-E4	3				
Cut-through resistance (N)	IEC-60794-1-21-E12	150				
Static bend radius (mm)	IEC-60794-1-21-E11	140	140	140	140	140
Kink radius (mm)	IEC-60794-1-21-E10	70	70	70	70	70
Max Crushing resistance (daN/cm)	IEC 60794-1-21- E3	20 25				
Temperature Cycling	IEC-60794-1-22-F1	Installation: -5°C to +45°C		Operation: -30°C to +70°C		Storage: -40°C to +70°C
Water Penetration	IEC-60794-1-22-F5B	1m water head, 3m samples, 24 hrs no water leakage				

** After the test, the change in attenuation shall be ≤ 0.05 dB/km. No damage or crack on cable & no fibre break.

Cabled Optical Fibres Characteristics

The optical fibres are in accordance to the specifications ITU-T G.652D Nova and ITU-T G.657A2. Refer to specific data sheets for details.

Transmission Characteristics						
Fibre Type	Attenuation coefficient, dB/km (Average/Maximum)			PMD, ps/√km	PMD LDV ps/√km	Cut-off Wavelength (λcc), nm 1310nm
	1310nm	1550nm	1625nm			
G652D Nova fibre	≤ 0,35 / 0,36	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0 ,20	≤ 0.10	≤ 1260
G657A2 fibre	≤ 0,35 / 0,36	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0 ,20	≤ 0.15	≤ 1260

Fibre Standard Colour Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Tube Standard Color Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Packing and Lengths

Packing: Wooden drums
Lengths (tolerance ±5%): 2km
Note - Customised drum lengths available on request.

Sheath printing details

STERLITE < Fibre Type ><Fibre Count><Product Type ><OFC Laser Symbol ><Telephone Symbol ><Month & Year of Production><Cable ID>< Meter Marking>

YogaLite™ Single Jacket for Indoor/Outdoor Distribution

2d0144:DM012:XF--SE

Product Details

YogaLite™ Single Jacket cable for duct installations with easy midspan access networks by Sterlite Tech™ is based on micro-module technology to create an optimized design preferably to be used in buildings, but are compatible with an installation in ductsover a short distance (about 300m) or on façades (building exteriors). The micro-module units consist of groups of fibres protected by an easily strippable and flexible thermoplastic material and filled with thixotropic compound. These microstructures are surrounded with water swelling elements to protect against moisture ingress, and are constrained in aflame retardant thermoplastic sheath, which is provided with embedded strength members to protect from against buckling.

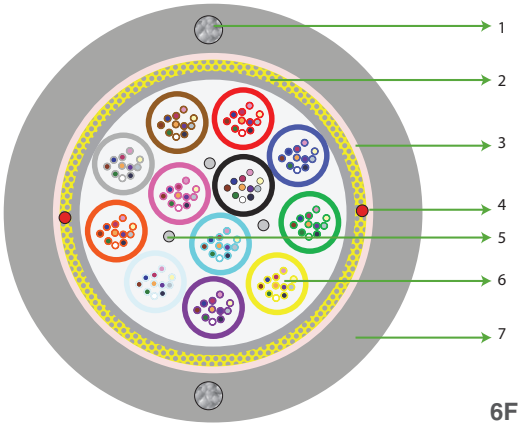
Product Application

The YogaLite™ Single Jacket Fibre Optic Cable is intended for indoor/outdoor use. This design is suited for installation inbuildings, in ducts over a short distance (about 300m) or on façades.. The compact micro-module construction with fibre counts ranging from 6 to 144 fibres enables offers a versatile and compact construction with the benefits of quick fibre preparation ready for installation.

Features & Benefits

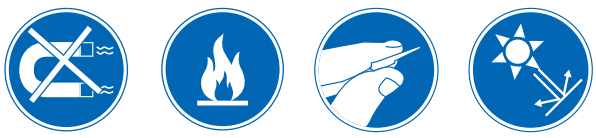
- Available in Fibre types SM G652D Nova, G657. A2. Other fibre options in either single-mode or multi-mode optical fibres are available upon request.
- Reduced diameter micro- modules manufactured from soft and flexible elastomeric material.
- Diametrically opposed embedded strength members provides excellent crush protection performance.
- Fibre micro-modules are kink resistant and easily removed without the need for tools.
- Ultra-compactness, easier storage and faster installation.
- Longitudinal moisture protection is enabled by water blocking compounds in tube and core.
- Fire retardant.
- Tightly controlled physical parameters.
- Combination of fibre types available on request

Typical Construction of Cable



6F to 144F

1. EMBEDDED STRENGTH MEMBERS
2. ARAMID YARNS
3. CORE WRAPPING WITH WATER SWELLABLE TAPE
4. RIPCORD(S)
5. WS YARNS
6. SEMI DRY MICROMODULES WITH FIBRES
7. OUTER SHEATH



Totally Dielectric | Flame retardant | Easy Strippable | UV Protected

Performance Standards

Cable Complies to the following main Standards IEC.60794 series, EN 60794, ANSI/ICEA S-87-640, Telcordia GR-20, ITU-T Recommendations

Specifications 12F/Module

Physical Characteristics										
Fibre Count	6	12	24	36	24	36	48	72	96	144
Number of Fibres in Each Micromodules	6				8		12			
Number of Micromodule in each cable	1	2	4	6	2	3	4	6	8	12
Nominal Cable Diameter (mm) ± 0.5mm	5.9	7.5	7.9	8.4	7.9	8.3	8.8	9.5	9.5	12.2
Nominal Cable Weight (kg/km) ± 10%	45	55	65	72	64	70	77	86	105	145

Mechanical and Environmental Characteristics*											
Test	Standard / Notes	Product Performance									
Max Tensile strength Tm (daN)	IEC-60794-1-21-E1	70						120	120	120	180
Impact resistance (N.m)	IEC-60794-1-21-E4	5									
Cut-through resistance (N)	IEC-60794-1-21-E12	300									
Static bend radius (mm)	IEC-60794-1-21-E11	90	90	90	90	90	90	120	120	140	140
Kink radius (mm)	IEC-60794-1-21-E10	45	45	45	45	45	45	60	60	70	70
Torsion	IEC-60794-1-21-E7	±180°/m, L=45N				±180°/m, L=45N		±180°/m, L=50N		±180°/m, L=55N	
Max Crushing resistance (daN/cm)	IEC 60794-1-2 1- E3	20 25									
Temperature Cycling	IEC-60794-1-22-F1	Installation: -5°C to +45°C			Operation: -30°C to +70°C			Storage: -40°C to +70°C			
Water Penetration	IEC-60794-1-22-F5B	1m water head, 3m samples, 24 hrs no water leakage									

** After the test, the change in attenuation shall be ≤ 0.05 dB/km.No damage or crack on cable & no fibre break.

Cabled Optical Fibres Characteristics

The optical fibres are in accordance to the specifications ITU-T G.652D Nova and ITU-T G.657A2. Refer to specific data sheets for details.

Transmission Characteristics						
Fibre Type	Attenuation coefficient, dB/km (Average/Maximum)			PMD, ps/√km	PMD LDV ps/√km	Cut-off Wavelength (λcc), nm 1310nm
	1310nm	1550nm	1625nm			
G652D Nova fibre	≤ 0,35 / 0,36	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0 ,20	≤ 0.10	≤ 1260
G657A2 fibre	≤ 0,35 / 0,36	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0 ,20	≤ 0.15	≤ 1260

Fibre Standard Colour Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Tube Standard Color Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Packing and Lengths

Packing: Wooden drums
Lengths (tolerance ±5%): 2km
Note - Customised drum lengths available on request.

Sheath printing details

STERLITE < Fibre Type ><Fibre Count><Product Type ><OFC Laser Symbol ><Telephone Symbol ><Month & Year of Production><Cable ID>< Meter Marking>

YogaLite™ Single Jacket for Indoor Riser Installations

a20144:RM012:XF--SE

Product Details

YogaLite™ Single Jacket cable for indoor distribution application by Sterlite Tech™ is based on micro-module technology to create an optimized design suitable for use in vertical installation into the building scenarios. The micro-module units consist of groups of fibres protected by an easily strippable and flexible thermoplastic material and filled with thixotropic compound. These microstructures are surrounded with water swelling elements to protect against moisture ingress, and are constrained in a flame retardant thermoplastic sheath making the cable robust and installation friendly.

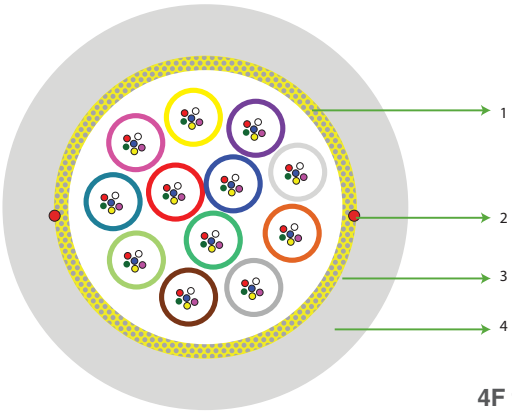
Product Application

The YogaLite™ Single Jacket Fibre Optic Cable is intended for internal use only. This design is suited for use in vertical installation in to the building. The compact micro-module construction with fibre counts ranging from 4 to 144 fibres enables offers a versatile and compact construction with the benefits of quick fibre preparation ready for installation.

Features & Benefits

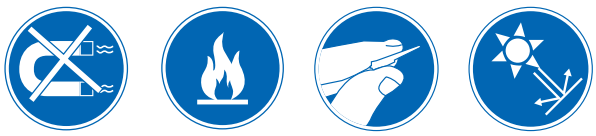
- Available in Fibre types G657.A2. Other fibre options in either single-mode or multi-mode optical fibres are available upon request.
- Reduced diameter micro- modules manufactured from soft and flexible elastomeric material.
- Diametrically opposed embedded strength members provides excellent crush protection performance.
- Fibre micro-modules are kink resistant and easily removed without the need for tools.
- Fast and easy midspan access.
- Ultra-compactness, easier storage and faster installation.
- Longitudinal moisture protection is enabled by water blocking compounds in tube and core.
- UV protected.
- Tightly controlled physical parameters.
- Combination of fibre types available on request

Typical Construction of Cable



4F to 144F

1. ARAMID YARNS
2. RIPCORD(S)
3. SEMI DRY MICROMODULES WITH FIBRES
4. OUTER SHEATH



Totally Dielectric | Flame retardant | Easy Strippable | UV Protected

Performance Standards

Cable Complies to the following main Standards IEC.60794 series, EN 60794, ANSI/ICEA S-87-640, Telcordia GR-20, ITU-T Recommendations

Specifications

12F/Module

Physical Characteristics							
Fibre Count		12	24	48	72	96	144
Number of Fibres in Each Micromodules		12					
Number of Micromodule in each cable		1	2	4	6	8	12
Nominal Cable Diameter (mm) ± 0.5mm		8.5	8.5	9.0	10.2	10.8	11.5
Nominal Cable Weight (kg/km) ± 10%		63	65	70	82	90	102
Mechanical and Environmental Characteristics							
Test	Standard / Notes	Product Performance					
Max Tensile strength Tm (daN)	IEC-60794-1-21-E1	50	50	50	60	60	60
Impact resistance (N.m)	IEC-60794-1-21-E4	3					
Cut-through resistance (N)	IEC-60794-1-21-E12	100					
Static bend radius (mm)	IEC-60794-1-21-E11	110	110	110	120	120	120
Kink radius (mm)	IEC-60794-1-21-E10	55	55	55	60	60	60
Torsion	IEC-60794-1-21-E7	±180°/m, L=55N					
Max Crushing resistance (daN/cm)	IEC 60794-1-21- E3	20 25					
Temperature Cycling	IEC-60794-1-22-F1	Installation: -5°C to +45°C		Operation: -30°C to +70°C		Storage: -40°C to +70°C	
Water Penetration	IEC-60794-1-22-F5B	1m water head, 3m samples, 24 hrs no water leakage					

** After the test, the change in attenuation shall be ≤ 0.05 dB/km. No damage or crack on cable & no fibre break.

6F/Module

Physical Characteristics							
Fibre Count		12	24	48	72	96	144
Number of Fibres in Each Micromodules		6					
Number of Micromodule in each cable		2	4	6	8	12	24
Nominal Cable Diameter (mm) ± 0.5mm		8.0	8.5	9.4	10.0	11.2	13.0
Nominal Cable Weight (kg/km) ± 10%		58	65	75	82	96	124
Mechanical and Environmental Characteristics							
Test	Standard / Notes	Product Performance					
Max Tensile strength Tm (daN)	IEC-60794-1-21-E1	50	50	50	60	60	60
Impact resistance (N.m)	IEC-60794-1-21-E4	3					
Cut-through resistance (N)	IEC-60794-1-21-E12	100					
Static bend radius (mm)	IEC-60794-1-21-E11	110	110	110	120	120	120
Kink radius (mm)	IEC-60794-1-21-E10	55	55	55	60	60	60
Torsion	IEC-60794-1-21-E7	±180°/m, L=55N					
Max Crushing resistance (daN/cm)	IEC 60794-1-21- E3	15 20					10 15
Temperature Cycling	IEC-60794-1-22-F1	Installation: -5°C to +45°C		Operation: -30°C to +70°C		Storage: -40°C to +70°C	
Water Penetration	IEC-60794-1-22-F5B	1m water head, 3m samples, 24 hrs no water leakage					

** After the test, the change in attenuation shall be ≤ 0.05 dB/km. No damage or crack on cable & no fibre break.

4F/Module

Physical Characteristics							
Fibre Count		12	24	48	72	96	144
Number of Fibres in Each Micromodules		4					
Number of Micromodule in each cable		3	6	12	18	24	36
Nominal Cable Diameter (mm) ± 0.5mm		7.5	8.4	9.8	10.7	11.5	13.0
Nominal Cable Weight (kg/km) ± 10%		52	62	78	90	100	125
Mechanical and Environmental Characteristics							
Test	Standard / Notes	Product Performance					
Max Tensile strength Tm (daN)	IEC-60794-1-21-E1	50	50	50	60	60	60
Impact resistance (N.m)	IEC-60794-1-21-E4	3					
Cut-through resistance (N)	IEC-60794-1-21-E12	100					
Static bend radius (mm)	IEC-60794-1-21-E11	110	110	110	120	120	130
Kink radius (mm)	IEC-60794-1-21-E10	55	55	55	60	60	65
Torsion	IEC-60794-1-21-E7	±180°/m, L=55N					±180°/m, L=60N
Max Crushing resistance (daN/cm)	IEC 60794-1-21- E3	15 20			10 15		
Temperature Cycling	IEC-60794-1-22-F1	Installation: -5°C to +45°C		Operation: -30°C to +70°C		Storage: -40°C to +70°C	
Water Penetration	IEC-60794-1-22-F5B	1m water head, 3m samples, 24 hrs no water leakage					

** After the test, the change in attenuation shall be ≤ 0.05 dB/km. No damage or crack on cable & no fibre break.

Cabled Optical Fibres Characteristics

The optical fibres are in accordance to the specifications ITU-T G.657A2. Refer to specific data sheets for details.

Transmission Characteristics						
Fibre Type	Attenuation coefficient, dB/km (Average/Maximum)			PMD, ps/√km	PMD LDV ps/√km	Cut-off Wavelength (λcc), nm 1310nm
	1310nm	1550nm	1625nm			
G657A2 fibre	≤ 0,35 / 0,36	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0 ,20	≤ 0.10	≤ 1260

Fibre Standard Colour Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Tube Standard Color Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

* For more than 12 modules, single or double stripes marking are done as per EIA/TIA 598.

Packing and Lengths

Packing: Wooden drums
Lengths (tolerance ±5%): 1km
Note - Customised drum lengths available on request.

Sheath printing details

STERLITE < Fibre Type ><Fibre Count><Product Type ><OFC Laser Symbol ><Telephone Symbol ><Month & Year of Production><Cable ID>< Meter Marking>

Outdoor FTTX
Fibre Optic Cable

Indicium Lite™ Retractable

a10048:DL002:----SE

Product Details

Sterlite Tech™ Indicium Lite™ Retractable Fibre Optic Cable is used for outdoor installation into ducts, constructed with colour coded single mode /bend sensitive fibres placed in a thermoplastic tube/ module, protected by two embedded strength members for anti buckling property and are covered with outer sheath which makes the cable robust and installation friendly.

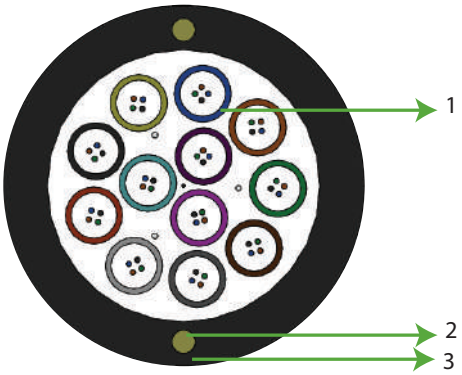
Product Application

These cables can be used for outdoor installation into ducts. Window cuts into the sheath wall allow easy selection and extraction of single fibre unit for re-routing purposes without the need to dispose of excess cable. Modules may be further blown, pushed or pulled (using pulling cords) inside microducts (7/3.5mm).

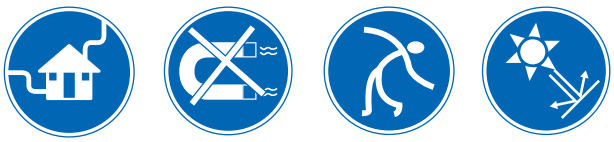
Features & Benefits

- Available upto 48 fibre count in either single-mode or multi-mode optical fibres
- Special low-bend-sensitivity fibre provides high bandwidth and excellent communication transmission property
- Two parallel strength members ensure good performance of crush resistance to protect the fibre
- Simple structure, light weight and high practicability
- UV protected
- Tightly controlled physical parameters
- Combination of fibre types available on request

Typical Construction of Cable



1. LOOSE TUBE WITH FIBRES & GEL
2. EMBEDDED STRENGTH MEMBER
3. OUTER SHEATH



Performance Standards

Cable complies to the following main Standards IEC.60794 series, ANSI/ICEA S-87-640, Telcordia GR-20, ITU-T Recommendations,

Specifications

Physical Characteristics		
Fibre Count	24	48
Fibres per Tube	2	2
Nominal Cable Diameter (mm) ± 0.5mm	15	15
Nominal Cable Weight (kg/km) ± 10%	115	115

Mechanical and Environmental Characteristics				
Test	Standard / Notes	Product Performance		
Max. Tensile Strength (N)	IEC-60794-1-21-E1	1000		
Bending Radius	IEC-60794-1-21-E11	Dynamic = 20D, Static = 15D		
Crush Resistance (N/100mm)	IEC-60794-1-21-E3	500		
Impact strength (N.m)	IEC-60794-1-21-E4	4		
Torsion	IEC-60794-1-21-E7	± 180°		
Drip Test	IEC-60794-1-21-E14	30 cm, 70°C, 24 hr		
Temperature Cycling	IEC-60794-1-22-F1	Installation: -10°C to +60°C	Operation: -20°C to +70°C	Storage: -30°C to +70°C
Water Penetration	IEC-60794-1-22-F5B	1m water head, 3m samples, 24 hrs no water leakage		

** After the test, the change in attenuation shall be ≤ 0.05 dB/km. No damage or crack on cable & no fibre break.

Cabled Optical Fibres Characteristics

The optical fibres are in accordance to the specifications ITU-T G.657A1. Refer to specific data sheets for details.

Transmission Characteristics						
Fibre Type	Attenuation coefficient, dB/km (Average/Maximum)			PMD, ps/ ps/√km	PMD qlink, ps/√km	Cut-off Wavelength (λcc), nm 1310nm
	1310nm	1550nm	1625nm			
G657A1 fibre	≤ 0,35 / 0,36	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0 ,20	≤ 0,1	≤ 1260

** This fibre is also available as a bend insensitive (Sterlite Tech's NOVA fibre)

Tube / Fibre Standard Colour Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

13	14	15	16	17	18	19	20	21	22	23	24
Blue	Orange	Green	Brown	Grey	White	Red	Natural	Yellow	Violet	Pink	Aqua

Packing and Lengths

Packing: Wooden drums
Lengths (tolerance ±5%): 2km
Note - Customised drum lengths available on request.

Sheath printing details

STERLITE < Fibre Type ><Fibre Count><Product Type ><OFC Laser Symbol ><Telephone Symbol ><Month & Year of Production><Cable ID>< Meter Marking>

Atlas Lite™ Airblown

2d0024:DM024:W---S-

Patent numbers
- IN 201621036747
- EP 17020118.0
- GB 1704870.5

Product Details

Sterlite Tech™ Atlas Lite™ Airblown Fibre Optic cable is generally used in FTTx applications. It features light weight and small diameter specifically designed for metro feeder or access networking, especially suitable for air-blowing installation into single or bundled micro ducts. A dual layer thermoplastic material provides the best possible balance between stiffness and flexibility, optimum co-efficient of friction and the required crush resistance and tensile strength for enhanced blowing performance.

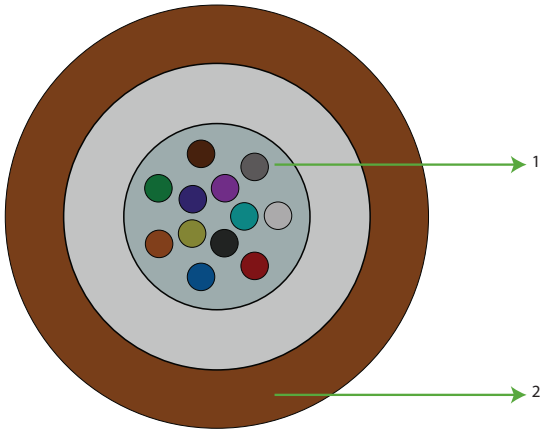
Product Application

This design gives optimum balance of stiffness and flexibility allowing longer blowing distances compared to other blown cables available in the market which are blown into the smallest duct size using air-blowing cable installations. This technology is common in congested areas, such as metro applications where duct space is very limited, can be installed in new as well as existing ducts.

Features & Benefits

- Available upto 24 fibre count in either single-mode or multi-mode optical fibres
- Unitube design allows minimised weight and eases cable installation
- Small size, fast cable termination and easy cable management
- Optimum solution for last mile application
- Provides comparable better crush and impact resistance
- Provides optimum co-efficient of friction for enhanced blowing performance
- Longitudinal water protection is enabled by water blocking compounds in tube
- UV protected
- Tightly controlled physical parameters
- Combination of fibre types available on request

Typical Construction of Cable



1. FIBRES & GEL
2. DUAL LAYER OUTER SHEATH

Performance Standards

Cable complies to the latest issue of following main Standards IEC.60794 series, ANSI/ICEA S-87-640, Telcordia GR-20, ITU-T Recommendations, GR-409, RoHS

Specifications

Physical Characteristics			
Fibre Count	2-6	12	24
Fibre Diameter (Micron)	250	250	200
Nominal Cable Diameter (mm) ± 0.3mm	2.0	2.3	2.4
Nominal Cable Weight (kg/km) ± 10%	5.0	6.0	8.0

Mechanical and Environmental Characteristics*				
Test	Standard / Notes	Product Performance		
Max. Tensile Strength (N)	IEC-60794-1-21-E1	70N		
Bending Radius	IEC-60794-1-21-E11	Dynamic = 15D, Static = 10D		
Crush Resistance (N/100mm)	IEC-60794-1-21-E3	800		
Impact strength (N.m)	IEC-60794-1-21-E4	3		
Torsion	IEC-60794-1-21-E7	± 180°		
Drip Test	IEC-60794-1-21-E14	30 cm, 70°C, 24 hr		
Temperature Cycling	IEC-60794-1-22-F1	Installation: -10°C to +50°C	Operation: -20°C to +70°C	Storage: -20°C to +70°C
Water Penetration	IEC-60794-1-22-F5B	1m water head, 3m samples, 24 hrs no water leakage		

** After the test, the change in attenuation shall be ≤ 0.05 dB/km.No damage or crack on cable & no fibre break.

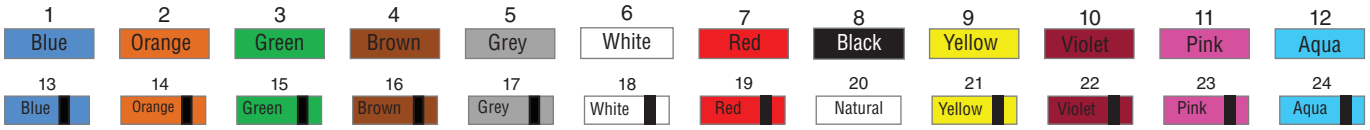
Cabled Optical Fibres Characteristics

The optical fibres are in accordance to the specifications ITU-T G.652D andITU-T G.657A1. Refer to specific data sheets for details.

Transmission Characteristics						
Fibre Type	Attenuation coefficient, dB/km			PMD, ps/√km	PMD LDV ps/√km	Cut-off Wavelength (λcc), nm 1310nm
	1310nm	1550nm	1625nm			
G652D fibre **	≤ 0,4	≤ 0,3	≤ 0,4	≤ 0 ,20	≤ 0,1	≤ 1260
G657A1 fibre	≤ 0,4	≤ 0,3	≤ 0,4	≤ 0 ,20	≤ 0,1	≤ 1260

** This fibre is also available as a bend insensitive (Sterlite Tech's NOVA fibre)

Fibre Standard Colour Code (As per EIA/TIA 598)



Packing and Lengths

Packing: Plastic Spool

Lengths (tolerance ±5%): 2/4/6 km

Note - Customised drum lengths available on request.

Sheath printing details

STERLITE < Fibre Type ><Fibre Count><Product Type ><OFC Laser Symbol ><Telephone Symbol ><Month & Year of Production><Cable ID>< Meter Marking>

DUCT-LITE® Unitube Single Jacket Duct Nano

2d0024:DL024:W---S-

Product Details

Sterlite Tech™ DUCT-LITE® Unitube Single Jacket Duct Nano Fibre Optic Cable is used for used for outdoor applications in cable trays or ducts or aerial drop for access inside campus and within buildings. This cable consists of colour coded optical fibres placed in a central tube along with gel to protect from water ingress and is surrounded with aramid yarns which provides tensile to the core. Thermoplastic sheath placed over the dielectric armor layer makes the cable user friendly.

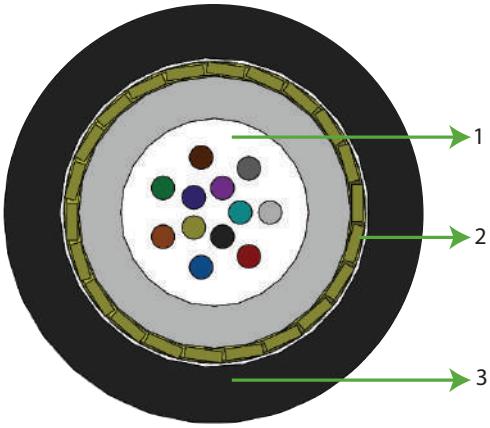
Product Application

These cables can be used for outdoor applications in cable trays or ducts or aerial drop for access inside campus and within buildings.

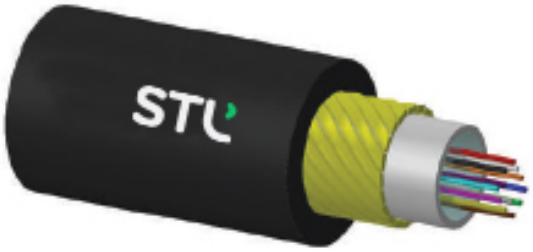
Features & Benefits

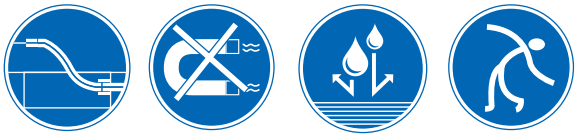
- Available upto 24 fibre count in either single-mode or multi-mode optical fibres
- Unitube design allows minimised weight and eases cable installation
- Small size, fast cable termination and easy cable management
- Optimum solution for last mile application
- Easily removable rugged jacket
- Longitudinal water protection is enabled by water blocking compounds in tube
- UV protected
- Tightly controlled physical parameters
- Combination of fibre types available on request

Typical Construction of Cable



1. LOOSE TUBE WITH FIBRES & GEL
2. PERIPHERAL STRENGTH YARNS
3. OUTER SHEATH





Performance Standards

Cable Complies to the following main Standards IEC.60794 series, ANSI/ICEA S-87-640, Telcordia GR-20, ITU-T Recommendations, GR-409 CPR rating for LSZH sheath

Specifications

Physical Characteristics		
Fibre Count	2-12	24
Nominal Cable Diameter (mm) ± 0.5mm	2.5	3.2
Nominal Cable Weight (kg/km) ± 10%	10	15

Mechanical and Environmental Characteristics				
Test	Standard / Notes	Product Performance		
Max. Tensile Strength (N)	IEC-60794-1-21-E1	100 N @ 0.5% fibre Strain 40 N @ No fibre Strain		
Bending Radius	IEC-60794-1-21-E11	Dynamic = 15D, Static = 10D		
Crush Resistance (N/100mm)	IEC-60794-1-21-E3	100		
Impact strength (N.m)	IEC-60794-1-21-E4	5		
Torsion	IEC-60794-1-21-E7	± 180°		
Drip Test	IEC-60794-1-21-E14	30 cm, 70°C, 24 hr		
Temperature Cycling	IEC-60794-1-22-F1	Installation: -10°C to +60°C	Operation: -20°C to +70°C	Storage: -30°C to +70°C
Water Penetration	IEC-60794-1-22-F5B	1m water head, 3m samples, 24 hrs no water leakage		

** After the test, the change in attenuation shall be ≤ 0.05 dB/km.No damage or crack on cable & no fibre break.

Cabled Optical Fibres Characteristics

The optical fibres are in accordance to the specifications ITU-T G.652D andITU-T G.657A1. Refer to specific data sheets for details.

Transmission Characteristics						
Fibre Type	Attenuation coefficient, dB/km (Average/Maximum)			PMD, ps/√km	PMD LDV, ps/√km	Cut-off Wavelength (λcc), nm 1310nm
	1310nm	1550nm	1625nm			
G652D fibre	≤ 0,35 / 0,36	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0 ,20	≤ 0,1	≤ 1260
G657A1 fibre	≤ 0,35 / 0,36	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0 ,20	≤ 0,1	≤ 1260

** This fibre is also available as a bend insensitive (Sterlite Tech's NOVA fibre)

Fibre Standard Colour Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua
13	14	15	16	17	18	19	20	21	22	23	24
Blue	Orange	Green	Brown	Grey	White	Red	Natural	Yellow	Violet	Pink	Aqua

Packing and Lengths

Packing: Plastic spool

Lengths (tolerance ±5%): 2 km, 4 km, 6 km

Note - Customised drum lengths available on request.

Sheath printing details

STERLITE < Fibre Type ><Fibre Count><Product Type ><OFC Laser Symbol ><Telephone Symbol ><Month & Year of Production><Cable ID>< Meter Marking>

AERIAL-LITE® Unitube Figure-8

2d0012:8L012:W---S-

Product Details

Sterlite Tech™ AERIAL-LITE® Unitube Figure-8 Optical Fibre Cable is a Unitube cable, which is intended for use in aerial installations. This product has integrated extra high strength (EHS) stranded steel messenger wire as a support strand which provides high tensile strength to the cable and make them ideal to be used for aerial outdoor applications. This cable consists of colour coded optical fibres placed in a central tube along with gel to protect from water ingress and is surrounded with aramid yarns which provides tensile to the core. Thermoplastic sheath is placed over the cable core and integrated stranded steel messenger to form a “Figure-8” configuration

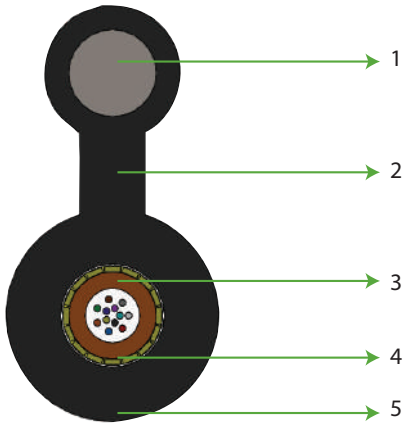
Product Application

- Designed suitably for outside plant (OSP) aerial applications for short runs between buildings and also for short, medium span aerial installations
- Provides easy and economical one-step installation and stable performance over a wide temperature range and is compatible with any local distribution telecommunication network.

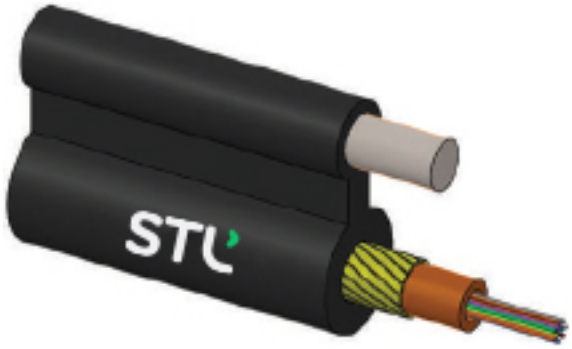
Features & Benefits

- Available up to 12 fibre count in either single-mode or multi-mode optical fibres
- Unitube design allows minimised weight and eases cable installation
- Small size, fast cable termination and easy cable management
- Optimum solution for last mile application
- Figure-8 cable design provides easy and economical one-step installation
- High tensile strength steel (EHS) strand suited for aerial applications
- Tensile and crush resistant
- UV protected
- Tightly controlled physical parameters
- Combination of fibre types available on request

Typical Construction of Cable



1. STEEL WIRE
2. NECK
3. LOOSE TUBE WITH FIBRES & GEL
4. PERIPHERAL STRENGTH MEMBERS
5. OUTER SHEATH



Performance Standards

Cable complies to the following main Standards IEC.60794 series, ANSI/ICEA S-87-640, Telcordia GR-20, ITU-T Recommendations, RoHS

Specifications

Physical Characteristics				
Fibre Count		4-12		
Nominal Cable Diameter (mm) ± 0.5mm		5.2 X 10.2		
Nominal Cable Weight (kg/km) ± 10%		48		
Mechanical and Environmental Characteristics*				
Test	Standard / Notes	Product Performance		
Max. Tensile Strength (N)	IEC-60794-1-21-E1	1200		
Bending Radius	IEC-60794-1-21-E11	Dynamic = 15D, Static = 10D		
Crush Resistance (N/100mm)	IEC-60794-1-21-E3	1000		
Impact strength (N.m)	IEC-60794-1-21-E4	10		
Torsion	IEC-60794-1-21-E7	± 180°		
Drip Test	IEC-60794-1-21-E14	30 cm, 70°C, 24 hr		
Temperature Cycling	IEC-60794-1-22-F1	Installation: -10°C to +60°C	Operation: -20°C to +70°C	Storage: -30°C to +70°C
Water Penetration	IEC-60794-1-22-F5B	1m water head, 3m samples, 24 hrs no water leakage		

** After the test, the change in attenuation shall be ≤ 0.05 dB/km.No damage or crack on cable & no fibre break.

Cabled Optical Fibres Characteristics

The optical fibres are in accordance to the specifications ITU-T G.652D andITU-T G.657A1. Refer to specific data sheets for details.

Transmission Characteristics						
Fibre Type	Attenuation coefficient, dB/km (Average/Maximum)			PMD, ps/√km	PMD LDV ps/√km	Cut-off Wavelength (λcc), nm 1310nm
	1310nm	1550nm	1625nm			
G652D** fibre	≤ 0,35 / 0,36	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0 ,20	≤ 0,1	≤ 1260
G657A1 fibre	≤ 0,35 / 0,36	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0 ,20	≤ 0,1	≤ 1260

** This fibre is also available as a bend insensitive (Sterlite Tech's NOVA fibre)

Fibre Standard Colour Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Packing and Lengths

Packing: Wooden drums
Lengths (tolerance ±5%): 2km
Note - Customised drum lengths available on request.

Sheath printing details

STERLITE < Fibre Type ><Fibre Count><Product Type ><OFC Laser Symbol ><Telephone Symbol ><Month & Year of Production><Cable ID>< Meter Marking>

ARMOR-LITE® Unitube Single Jacket Steel Tape Armored

2d0024:BL024:W-TRS-

Product Details

Sterlite Tech™ ARMOR-LITE® Unitube Single Jacket Steel Tape Armored Cables is a central tube cable using optical fibres presented in loose tube and surrounded by Steel Tape armor. To protect the optical fibres from water ingress, the tube is filled with a thixotropic gel, and is enclosed in a thermoplastic sheath.The cables have embedded strength members for anti buckling property. The cables can also be offered with steel wire as embedded strength member to provide higher tensile strength.

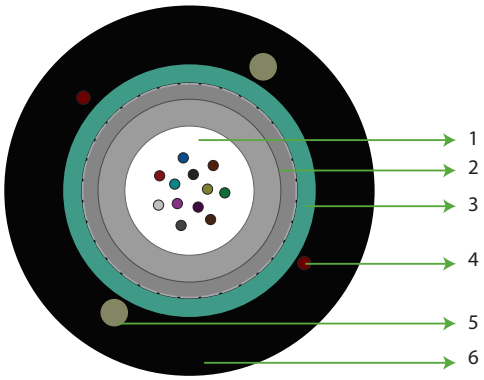
Product Application

These cables can be used for outdoor applications in ducts or aerial drop for access and distribution for campus/ between and within buildings. These cables can be installed in ducts with either pulling or blowing techniques and in aerial applications with traditional lashing methods.

Features & Benefits

- Available up to 24 fibre count in either single-mode or multi-mode optical fibres
- Steel tape adds to crush resistance as well as can be used as a cable locator after installation
- Cables are rodent protected
- Easily removable rugged jacket
- Flexible, light weight, easy to handle & install
- Tensile and crush resistant
- UV protected
- Tightly controlled physical parameters
- Combination of fibre types available on request

Typical Construction of Cable



1. LOOSE TUBE WITH FIBRES & GEL
2. WATER SWELLABLE TAPE
3. STEEL TAPE ARMOR
4. RIPCORD(S)
5. EMBEDDED STRENGTH MEMBER
6. OUTER SHEATH

Rodent Protection | Water Blocked | UV Protected

Performance Standards

Cable complies to the following main Standards IEC.60794 series, ANSI/ICEA S-87-640, Telcordia GR-20, ITU-T Recommendations, CPR Certification for LSZH sheath, RoHS

Specifications

Physical Characteristics		
Fibre Count	2-12	24
Nominal Cable Diameter (mm) ± 0.5mm	7.5	9.0
Nominal Cable Weight (kg/km) ± 10%	60	70

Mechanical and Environmental Characteristics*				
Test	Standard / Notes	Product Performance		
Max. Tensile Strength (N)	IEC-60794-1-21-E1	1000	1000	
Bending Radius	IEC-60794-1-21-E11	Dynamic = 20D, Static = 10D		
Crush Resistance (N/100mm)	IEC-60794-1-21-E3	1000	1000	
Impact strength (N.m)	IEC-60794-1-21-E4	25		
Torsion	IEC-60794-1-21-E7	± 180°		
Drip Test	IEC-60794-1-21-E14	30 cm, 70°C, 24 hr		
Temperature Cycling	IEC-60794-1-22-F1	Installation: -10°C to +60°C	Operation: -20°C to +70°C	Storage: -30°C to +70°C
Water Penetration	IEC-60794-1-22-F5B	1m water head, 3m samples, 24 hrs no water leakage		

** After the test, the change in attenuation shall be ≤ 0.05 dB/km. No damage or crack on cable & no fibre break.

Cabled Optical Fibres Characteristics

The optical fibres are in accordance to the specifications ITU-T G.652D. Refer to specific data sheets for details.

Transmission Characteristics						
Fibre Type	Attenuation coefficient, dB/km (Average/Maximum)			PMD, ps/√km	PMD LDV ps/√km	Cut-off Wavelength (λcc), nm 1310nm
	1310nm	1550nm	1625nm			
G652D	≤ 0,4	≤ 0,3	≤ 0,4	≤ 0 ,20	≤ 0,10	≤ 1260

Fibre Standard Colour Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

13	14	15	16	17	18	19	20	21	22	23	24
Blue	Orange	Green	Brown	Grey	White	Red	Natural	Yellow	Violet	Pink	Aqua

Packing and Lengths

Packing: Wooden drums
Lengths (tolerance ±5%): 2km, 4km
Note - Customised drum lengths available on request.

Sheath printing details

STERLITE < Fibre Type ><Fibre Count><Product Type ><OFC Laser Symbol ><Telephone Symbol ><Month & Year of Production><Cable ID>< Meter Marking>

ARMOR-LITE® Unitube Single Jacket Steel Wire Armored

2d0024:BL024:W-WRS-

Product Details

Sterlite Tech™ ARMOR –LITE™ Unitube Single Jacket Steel Wire Armored Cables is a multipurpose cable design that provides the reliability required in harsh environments. This is a central tube Cable using optical fibres presented in tube filled with a thixotropic gel to protect from water ingress. Core is sheathed with inner jacket and Steel wire armor surrounds the inner sheath with outer jacket placed over the armor layer making the cable robust and installation friendly. For potentially hazardous applications Low Smoke Zero Halogen is recommended.

Product Application

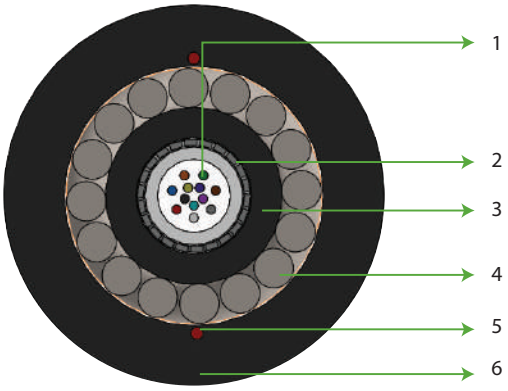
These cables are typically used in heavy construction zones including heavy traffic area, wind farm developments, pipelines, oil and gas fields, heavy industrial sites and a variety of additional harsh environments. This cable is suitable for direct buried and other hazardous applications.

- Heavy construction and hazardous applications like Oil and Gas fields.
- Voice, data, broadband and CATV transmission in Long Distance and Backbone Networks with direct burial, duct, marsh and river crossing installation methods.

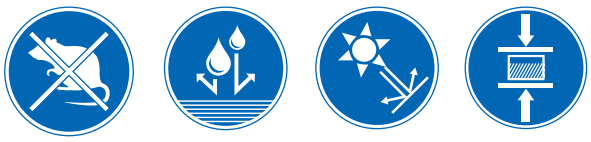
Features & Benefits

- Available up to 24 fibre count in either single-mode or multi-mode optical fibres
- Very high Crush and Impact resistant cable, suitable for harsh installation environment
- Wire armouring has excellent mechanical performance with high tensile properties
- Water blocking compounds outside the tubes and gel inside the tubes create water protection in the tubes and core
- Steel armouring provides rodent resistant
- Tensile and crush resistant
- UV protected
- Tightly controlled physical parameters
- Combination of fibre types available on request

Typical Construction of Cable



1. LOOSE TUBE WITH FIBRES & GEL
2. WATER SWELLABLE PERIPHERAL STRENGTH YARNS
3. INNER SHEATH
4. STEEL WIRE ARMORING
5. RIPCORD(S)
6. OUTER SHEATH



Performance Standards

Cable complies to the following main Standards IEC.60794 series, ANSI/ICEA S-87-640, Telcordia GR-20, ITU-T Recommendations, CPR certification for LSZH sheath

Specifications

Physical Characteristics		
Fibre Count	4-8	12-24
Nominal Cable Diameter (mm) ± 0.5mm	10.0	11.5
Nominal Cable Weight (kg/km) ± 10%	200	244

Mechanical and Environmental Characteristics*				
Test	Standard / Notes	Product Performance		
Max. Tensile Strength (N)	IEC-60794-1-21-E1	3500	3500	
Bending Radius	IEC-60794-1-21-E11	Dynamic = 15D, Static = 10D		
Crush Resistance (N/100mm)	IEC-60794-1-21-E3	4000	4000	
Impact strength (N.m)	IEC-60794-1-21-E4	50		
Torsion	IEC-60794-1-21-E7	± 180°		
Drip Test	IEC-60794-1-21-E14	30 cm, 70°C, 24 hr		
Temperature Cycling	IEC-60794-1-22-F1	Installation: -10°C to +60°C	Operation: -20°C to +70°C	Storage: -30°C to +70°C
Water Penetration	IEC-60794-1-22-F5B	1m water head, 3m samples, 24 hrs no water leakage		

** After the test, the change in attenuation shall be ≤ 0.05 dB/km. No damage or crack on cable & no fibre break.

Cabled Optical Fibres Characteristics

The optical fibres are in accordance to the specifications ITU-T G.652D andITU-T G.657A1. Refer to specific data sheets for details.

Transmission Characteristics						
Fibre Type	Attenuation coefficient, dB/km (Average/Maximum)			PMD, ps/√km	PMD LDV ps/√km	Cut-off Wavelength (λcc), nm 1310nm
	1310nm	1550nm	1625nm			
G652D** fibre	≤ 0,35 / 0,36	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0 ,20	≤ 0,1	≤ 1260
G657A1 fibre	≤ 0,35 / 0,36	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0 ,20	≤ 0,15	≤ 1260

** This fibre is also available as a bend insensitive (Sterlite Tech's NOVA fibre)

Fibre Standard Colour Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua
13	14	15	16	17	18	19	20	21	22	23	24
Blue	Orange	Green	Brown	Grey	White	Red	Natural	Yellow	Violet	Pink	Aqua

Packing and Lengths

Packing: Wooden drums
Lengths (tolerance ±5%): 2km
Note - Customised drum lengths available on request.

Sheath printing details

STERLITE < Fibre Type ><Fibre Count><Product Type ><OFC Laser Symbol ><Telephone Symbol ><Month & Year of Production><Cable ID>< Meter Marking>

DROP LITE Unitube Mini ADSS

2d0024:AL024:W---S-

Product Details

Sterlite Tech™ DROP LITE Unitube Mini ADSS Fibre Optic Cable is a unitube cable, which is intended for use in drop installations.This cable consists of colour coded optical fibres placed in a central tube along with gel to protect from water ingress and is surrounded with aramid yarns which provides tensile to the core. Thermoplastic sheath placed over the dielectric armor layer makes the cable user friendly.

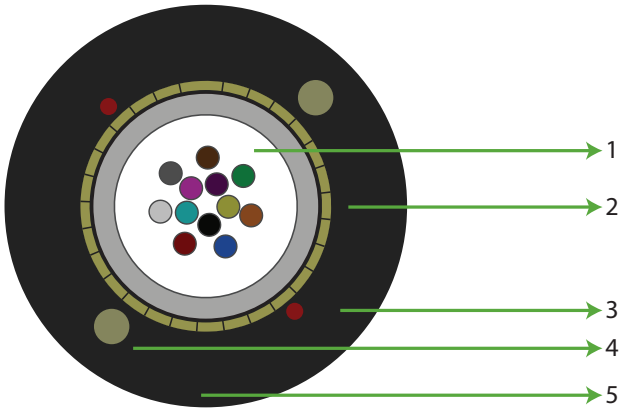
Product Application

These cables can be used for outdoor applications in access network or as access cable from outdoor to indoor in customer premises network. It can be used as access building cable in premises distribution system, especially used in outdoor aerial access cabling.

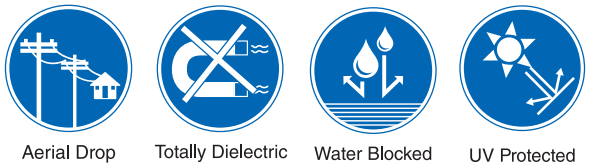
Features & Benefits

- Available up to 24 fibre count in either single-mode or multi-mode optical fibres
- Unitube design allows minimised weight and eases cable installation
- Small size, fast cable termination and easy cable management
- Optimum solution for last mile application
- Good mechanical and environmental characteristics
- High strength loose tube that is hydrolysis resistant
- Aramid yarn strength member ensure tensile strength
- Tensile and crush resistant
- UV protected
- Tightly controlled physical parameters
- Combination of fibre types available on request

Typical Construction of Cable



1. LOOSE TUBE WITH FIBRES & GEL
2. PERIPHERAL STRENGTH YARNS
3. RIPCORD(S)
4. EMBEDDED STRENGTH MEMBER
5. OUTER SHEATH



Performance Standards

Cable complies to the following main Standards IEC.60794 series, ANSI/ICEA S-87-640, Telcordia GR-20, ITU-T Recommendations

Specifications

Physical Characteristics			
Fibre Count		2-12	24
Nominal Cable Diameter (mm) ± 0.5mm		4.8	5.8
Nominal Cable Weight (kg/km) ± 10%		22	25
Mechanical and Environmental Characteristics*			
Test	Standard / Notes	Product Performance	
NESC Conditions/Span		(Wind Speed 65Km/Hr, Ice Loading 0mm)/50 m	
Maximum Operating Tension (Long Term)		150N	
Maximum Allowable Tension (Short term)		500N	
Installation Sag %		1.5%	
Bending Radius	IEC-60794-1-21-E11	Dynamic = 15D, Static = 10D	
Crush Resistance (N/100mm)	IEC-60794-1-21-E3	1000	1000
Impact strength (N.m)	IEC-60794-1-21-E4	10	
Torsion	IEC-60794-1-21-E7	± 180°	
Drip Test	IEC-60794-1-21-E14	30 cm, 70°C, 24 hr	
Temperature Cycling	IEC-60794-1-22-F1	Installation: -10°C to +60°C	Operation: -20°C to +70°C / Storage: -30°C to +70°C
Water Penetration	IEC-60794-1-22-F5B	1m water head, 3m samples, 24 hrs no water leakage	

** After the test, the change in attenuation shall be ≤ 0.05 dB/km.No damage or crack on cable & no fibre break.

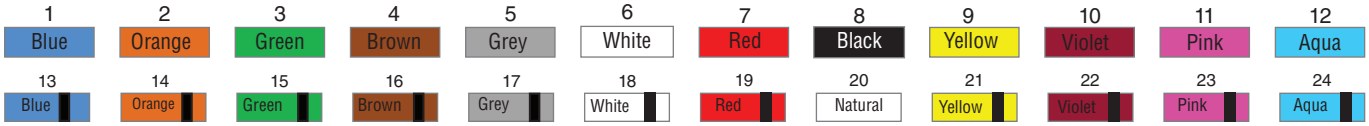
Cabled Optical Fibres Characteristics

The optical fibres are in accordance to the specifications ITU-T G.652D andITU-T G.657A1. Refer to specific data sheets for details.

Transmission Characteristics						
Fibre Type	Attenuation coefficient, dB/km (Average/Maximum)			PMD, ps/√km	PMD LDV, ps/√km	Cut-off Wavelength (λcc), nm 1310nm
	1310nm	1550nm	1625nm			
G652D** fibre	≤ 0,35 / 0,36	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0 ,20	≤ 0,08	≤ 1260
G657A1 fibre	≤ 0,35 / 0,36	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0 ,20	≤ 0,08	≤ 1260

** This fibre is also available as a bend insensitive (Sterlite Tech's NOVA fibre)

Fibre Standard Colour Code (As per EIA/TIA 598)



Packing and Lengths

Packing: Wooden drums with protection
Lengths (tolerance ±5%): 4 km
Note - Customised drum lengths available on request.

Sheath printing details

STERLITE < Fibre Type ><Fibre Count><Product Type ><OFC Laser Symbol ><Telephone Symbol ><Month & Year of Production><Cable ID>< Meter Marking>

DROP-LITE
Easy Strip Fig 8 Flat

a10002:8T002:-F--SE

Product Details

Sterlite Tech™ Drop-LITE Easy Strip Fig 8 Flat Cable is an enhanced performance FTTH solution, constructed with one/two single mode /bend sensitive fibres (ITU-T G657A1) protected by two strength members and a messenger wire on the top for aerial drop applications and a final LSZH jacket. This Cable is very light and easy to install and strip. Industry standard connectors can be used for direct Termination because of standard 250µm fibre size. Coloured fibre is for easy identification.

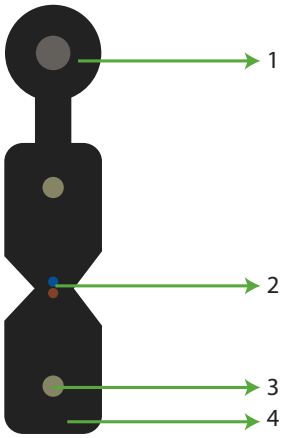
Product Application

These cables can be used for indoor/outdoor aerial applications and FTTX/FTTH applications between the apartment's central communication room and the apartment/office point.

Features & Benefits

- Available in 1 or 2 fibre count in either single-mode or multi-mode optical fibres
- Special low bend sensitivity fibre provides high bandwidth and excellent communication transmission property
- Two parallel strength members ensure good performance of crush resistance to protect the fibre
- Simple structure, light weight and high practicability
- More bandwidth, reliability and low cost
- Novel flute design, easily strip and splice, simplify the installation and maintenance
- Low smoke, zero halogen and flame retardant sheath
- Industry standard connectors can be used for direct Termination
- UV protected
- Tightly controlled physical parameters
- Combination of fibre types available on request

Typical Construction of Cable



1. SUPPORTING STRENGTH MEMBER
2. COLORED FIBRES
3. EMBEDDED STRENGTH MEMBERS
4. OUTER SHEATH

Performance Standards

Cable complies to the following main Standards IEC.60794 series, ANSI/ICEA S-87-640, Telcordia GR-20, ITU-T Recommendations, GR-409

Specifications

Physical Characteristics	
Fibre Count	1-2
Nominal Cable Diameter (mm) ± 0.5mm	5.4 X 2.0
Nominal Cable Weight (kg/km) ± 10%	20

Mechanical and Environmental Characteristics				
Test	Standard / Notes	Product Performance		
Max. Tensile Strength (N)	IEC-60794-1-21-E1	400		
Bending Radius	IEC-60794-1-21-E11	Dynamic = 15D, Static = 10D		
Crush Resistance (N/100mm)	IEC-60794-1-21-E3	1000		
Impact strength (N.m)	IEC-60794-1-21-E4	4		
Torsion	IEC-60794-1-21-E7	± 180°		
Drip Test	IEC-60794-1-21-E14	30 cm, 70°C, 24 hr		
Temperature Cycling	IEC-60794-1-22-F1	Installation: -10°C to +60°C	Operation: -20°C to +70°C	Storage: -30°C to +70°C
Water Penetration	IEC-60794-1-22-F5B	1m water head, 3m samples, 24 hrs no water leakage		

** After the test, the change in attenuation shall be ≤ 0.05 dB/km.No damage or crack on cable & no fibre break.

Cabled Optical Fibres Characteristics

The optical fibres are in accordance to the specifications ITU-T G.657A1. Refer to specific data sheets for details.

Transmission Characteristics						
Fibre Type	Attenuation coefficient, dB/km (Average/Maximum)			PMD, ps/√km	PMD LDV ps/√km	Cut-off Wavelength (λcc), nm 1310nm
	1310nm	1550nm	1625nm			
G657A1 fibre	≤ 0,4	< 0,3	< 0,4	≤ 0 ,20	≤ 0,1	≤ 1260

Fibre Standard Colour Code (As per EIA/TIA 598)

1	2
Blue	Orange

Packing and Lengths

Packing: Plastic drums

Lengths (tolerance ±5%): 500, 1000 Mtrs

Note - Customised drum lengths available on request.

Sheath printing details

STERLITE < Fibre Type ><Fibre Count><Product Type ><OFC Laser Symbol ><Telephone Symbol ><Month & Year of Production><Cable ID>< Meter Marking>

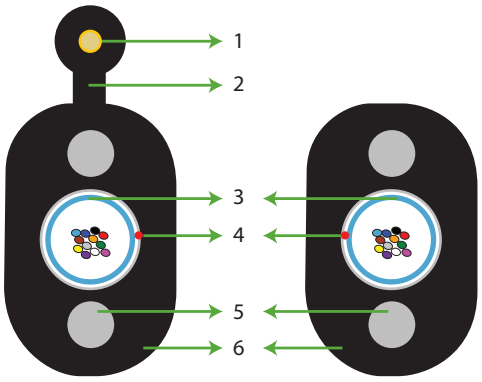
DROP-LITE Flat Drop Dielectric/Toneable

2d0012:RL012:W-WRS-

Product Details

Sterlite Tech™ DROP-LITE Flat Drop Dielectric/Toneable Fibre Optic Cable offers the ease of installation in an easy-access, single-tube design. This is a central Tube Cable using optical fibres presented in tube filled with a thixotropic gel, and is enclosed in a thermoplastic sheath. The cables have two embedded strength members for anti buckling property. The dielectric version eliminates any bonding and grounding requirements. Toneable version adds a 24 AWG conductor that provides underground location tracing, attached by a web for easy tear-away separation from the cable – the most popular option for underground and multi-purpose installation.

Typical Construction of Cable



1. COPPER TONING WIRE
2. NECK
3. LOOSE TUBE WITH FIBRES & GEL
4. RIPCORD(S)
5. EMBEDDED STRENGTH MEMBER
6. OUTER SHEATH

Product Application

This cable is well suitable for self-supporting aerial, duct, buried applications and as outdoor cable for all OSP drop cable applications. The dielectric version eliminates any bonding and grounding requirements. The cables offer exceptional crush resistance. UT Flat Drop provides easy FTTx (Fibre-To-The-X) installation and termination using existing hardware and methods for drops to homes and businesses. Its flat profile is compatible with economical wedge clamps for self-support aerial spans up to 90 meters, depending on environmental loading

Features & Benefits

- Available up to 12 fibre count in either single-mode or multi-mode optical fibres
- Embedded strength members for anti-buckling properties
- Longitudinal water protection is enabled by water blocking compounds in tube
- Easy access to fibre due to its unitube construction
- Available with steel wire as embedded strength member for higher tensile strengths
- Toning wire enables underground location
- Industry standard connectors can be used for direct termination
- Tensile and crush resistant
- UV protected
- Tightly controlled physical parameters
- Combination of fibre types available on request

Performance Standards

Cable complies to the following main Standards IEC.60794 series, ANSI/ICEA S-87-640, Telcordia GR-20, ITU-T Recommendations

Specifications

Physical Characteristics		
Fibre Count	Up to 12 (Dielectric)	Up to 12 (Toneable)
Nominal Cable Diameter (mm) ± 0.5mm	4.4 * 8.2	4.4 * 10.2
Nominal Cable Weight (kg/km) ± 10%	35	55

Mechanical and Environmental Characteristics*				
Test	Standard / Notes	Product Performance		
Max. Tensile Strength (N)	IEC-60794-1-21-E1	1300	1300	
Bending Radius	IEC-60794-1-21-E11	Dynamic = 15D, Static = 10D		
Crush Resistance (N/100mm)	IEC-60794-1-21-E3	2500	2500	
Impact strength (N.m)	IEC-60794-1-21-E4	25		
Torsion	IEC-60794-1-21-E7	± 180°		
Drip Test	IEC-60794-1-21-E14	30 cm, 70°C, 24 hr		
Temperature Cycling	IEC-60794-1-22-F1	Installation: -10°C to +60°C	Operation: -20°C to +70°C	Storage: -30°C to +70°C
Water Penetration	IEC-60794-1-22-F5B	1m water head, 3m samples, 24 hrs no water leakage		

** After the test, the change in attenuation shall be ≤ 0.05 dB/km.No damage or crack on cable & no fibre break.

Cabled Optical Fibres Characteristics

The optical fibres are in accordance to the specifications ITU-T G.652D andITU-T G.657A1. Refer to specific data sheets for details.

Transmission Characteristics						
Fibre Type	Attenuation coefficient, dB/km (Average/Maximum)			PMD, ps/√km	PMD LDV ps/√km	Cut-off Wavelength (λcc), nm 1310nm
	1310nm	1550nm	1625nm			
G652D fibre	≤ 0,35 / 0,36	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0 ,20	≤ 0,10	≤ 1260
G657A1 fibre	≤ 0,35 / 0,36	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0 ,20	≤ 0,10	≤ 1260

** This fibre is also available as a bend insensitive (Sterlite Tech's NOVA fibre)

Fibre Standard Colour Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Packing and Lengths

Packing: Wooden drums
Lengths (tolerance ±5%): 2km
Note - Customised drum lengths available on request.

Sheath printing details

STERLITE < Fibre Type ><Fibre Count><Product Type ><OFC Laser Symbol ><Telephone Symbol ><Month & Year of Production><Cable ID>< Meter Marking>

DROP LITE Unitube Single Jacket Embedded Strength Member

2d0024:RL024:W---SE

Product Details

Sterlite Tech™ DROP-LITE Unitube Single Jacket Embedded strength member Cables are multipurpose cables designed for diverse needs for CATV applications. This is a central tube cable using optical fibres presented in tube filled with a thixotropic gel, and is enclosed in a thermoplastic sheath.The cables have embedded strength members for anti-buckling property and can be either FRP or Steel wire as per the requirement.

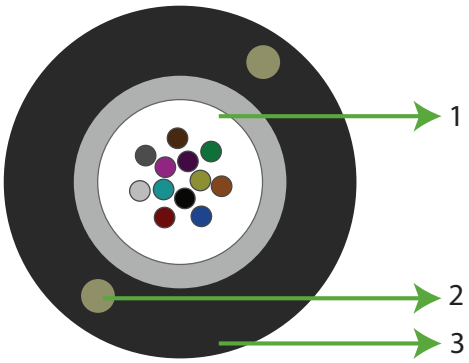
Product Application

These cables can be used for outdoor applications in ducts or aerial drop for access and distribution for campus/ between buildings. These cables can be installed in ducts with either pulling or blowing techniques and in aerial applications with traditional lashing methods.

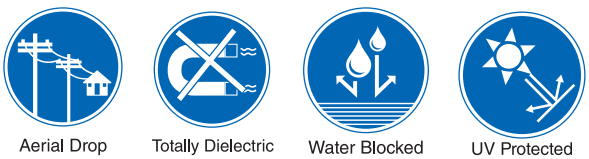
Features & Benefits

- Available up to 24 fibre count in either single-mode or multi-mode optical fibres
- Easily removable rugged jacket
- Flexible, light weight, easy to handle & install
- Tensile and crush resistant
- UV protected
- Tightly controlled physical parameters
- Combination of fibre types available on request

Typical Construction of Cable



1. LOOSE TUBE WITH FIBRES & GEL
2. EMBEDDED STRENGTH MEMBER
3. OUTER SHEATH



Performance Standards

Cable complies to the following main Standards IEC.60794 series, ANSI/ICEA S-87-640, Telcordia GR-20, ITU-T Recommendations

Specifications

Physical Characteristics		
Fibre Count	2-12	24
Nominal Cable Diameter (mm) ± 0.5mm	6.0	7.0
Nominal Cable Weight (kg/km) ± 10%	30	35

Mechanical and Environmental Characteristics*				
Test	Standard / Notes	Product Performance		
Max. Tensile Strength (N)	IEC-60794-1-21-E1	350		
Bending Radius	IEC-60794-1-21-E11	Dynamic = 20D, Static = 10D		
Crush Resistance (N/100mm)	IEC-60794-1-21-E3	1000		
Impact strength (N.m)	IEC-60794-1-21-E4	10		
Torsion	IEC-60794-1-21-E7	± 180°		
Drip Test	IEC-60794-1-21-E14	30 cm, 70°C, 24 hr		
Temperature Cycling	IEC-60794-1-22-F1	Installation: -10°C to +50°C	Operation: -20°C to +70°C	Storage: -30°C to +70°C
Water Penetration	IEC-60794-1-22-F5B	1m water head, 3m samples, 24 hrs no water leakage		

** After the test, the change in attenuation shall be ≤ 0.05 dB/km.No damage or crack on cable & no fibre break.

Transmission Characteristics						
Fibre Type	Attenuation coefficient, dB/km (Average/Maximum)			PMD, ps/√km	PMD LDV, ps/√km	Cut-off Wavelength (λcc), nm 1310nm
	1310nm	1550nm	1625nm			
G652D** fibre	≤ 0,35 / 0,36	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0 ,20	≤ 0.10	≤ 1260
G657A1 fibre	≤ 0,35 / 0,36	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0 ,20	≤ 0.10	≤ 1260

** This fibre is also available as a bend insensitive (Sterlite Tech's NOVA fibre)

Fibre Standard Colour Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Packing and Lengths

Packing: Wooden drums
Lengths (tolerance ±5%): 2km, 4km
Note - Customised drum lengths available on request.

Sheath printing details

STERLITE < Fibre Type ><Fibre Count><Product Type ><OFC Laser Symbol ><Telephone Symbol ><Month & Year of Production><Cable ID>< Meter Marking>

DROP LITE Unitube Single Jacket Dielectric Armored

2d0024:RL024:W-GRSE

Product Details

Sterlite Tech™ DROP LITE Unitube Single Jacket Dielectric Armored Fibre Optic Cable is central tube cable using optical fibres presented in loose tube and surrounded by glass roving yarn armor. To protect the Optical fibres from water ingress, the tube is filled with a thixotropic gel, and is enclosed in a thermoplastic sheath. For potentially hazardous applications Low Smoke Zero Halogen is recommended.

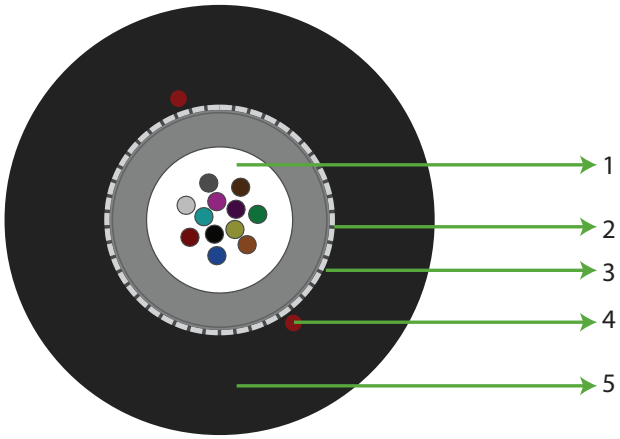
Product Application

These cables can be used for outdoor applications in ducts or direct buried or aerial drop for access and distribution for campus/ between and within buildings. These cables can be installed in ducts with either pulling or blowing techniques and in aerial applications with traditional lashing methods.

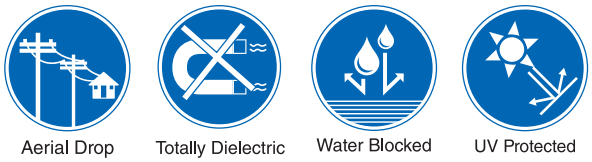
Features & Benefits

- Available up to 24 fibre count in either single-mode or multi-mode optical fibres
- Cables are rodent resistant
- Easily removable rugged jacket
- Flexible, light weight, easy to handle & install
- Tensile and crush resistant
- UV protected
- Tightly controlled physical parameters
- Combination of fibre types available on request

Typical Construction of Cable



1. LOOSE TUBE WITH FIBRES & GEL
2. WATER SWELLABLE TAPE
3. CORE WRAPPING WITH PERIPHERAL STRENGTH YARNS(IF REQUIRED)
4. RIPCORD(S)
5. OUTER SHEATH



Performance Standards

Cable complies to the following main Standards IEC.60794 series, ANSI/ICEA S-87-640, Telcordia GR-20, ITU-T recommendations CPR Certification for LSZH sheath

Specifications

Physical Characteristics		
Fibre Count	2-12	24
Nominal Cable Diameter (mm) ± 0.5mm	7.4	8.4
Nominal Cable Weight (kg/km) ± 10%	45	60

Mechanical and Environmental Characteristics*				
Test	Standard / Notes	Product Performance		
Max. Tensile Strength (N)	IEC-60794-1-21-E1	1000	1000	
Bending Radius	IEC-60794-1-21-E11	Dynamic = 15D, Static = 10D		
Crush Resistance (N/100mm)	IEC-60794-1-21-E3	1000	1000	
Impact strength (N.m)	IEC-60794-1-21-E4	25		
Torsion	IEC-60794-1-21-E7	± 180°		
Drip Test	IEC-60794-1-21-E14	30 cm, 70°C, 24 hr		
Temperature Cycling	IEC-60794-1-22-F1	Installation: -10°C to +60°C	Operation: -20°C to +70°C	Storage: -30°C to +70°C
Water Penetration	IEC-60794-1-22-F5B	1m water head, 3m samples, 24 hrs no water leakage		

** After the test, the change in attenuation shall be ≤ 0.05 dB/km.No damage or crack on cable & no fibre break.

Cabled Optical Fibres Characteristics

The optical fibres are in accordance to the specifications ITU-T G.652D andITU-T G.657A1. Refer to specific data sheets for details.

Transmission Characteristics						
Fibre Type	Attenuation coefficient, dB/km (Average/Maximum)			PMD, ps/√km	PMD LDV ps/√km	Cut-off Wavelength (λcc), nm 1310nm
	1310nm	1550nm	1625nm			
G652D** fibre	≤ 0,35 / 0,36	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0 ,20	≤ 0,1	≤ 1260
G657A1 fibre	≤ 0,35 / 0,36	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0 ,20	≤ 0,1	≤ 1450

** This fibre is also available as a bend insensitive (Sterlite Tech's NOVA fibre)

Fibre Standard Colour Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Packing and Lengths

Packing: Wooden drums
Lengths (tolerance ±5%): 19 km
Note - Customised drum lengths available on request.

Sheath printing details

STERLITE < Fibre Type ><Fibre Count><Product Type ><OFC Laser Symbol ><Telephone Symbol ><Month & Year of Production><Cable ID>< Meter Marking>

DROP-LITE Unitube Single Jacket Miniature

2d0024:RL024:W---S-

Product Details

Sterlite Tech™ DROP-LITE Unitube Single Jacket Miniature Fibre Optic Cable is used for outdoor applications in cable trays or ducts or aerial drop for access inside campus and within buildings. This cable consists of colour coded optical fibres placed in a central tube along with gel to protect from water ingress and is surrounded with aramid yarns which provides tensile to the core. Thermoplastic sheath placed over the dielectric armor layer makes the cable user friendly.

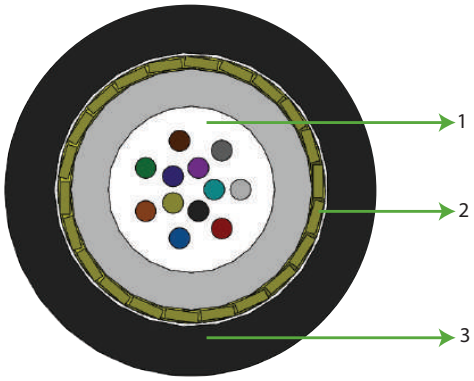
Product Application

These cables can be used for outdoor applications in cable trays or ducts or aerial drop for access inside campus and within buildings.

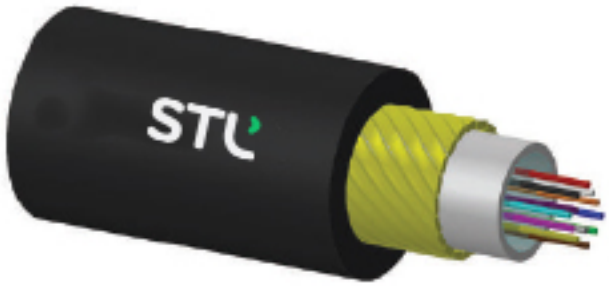
Features & Benefits

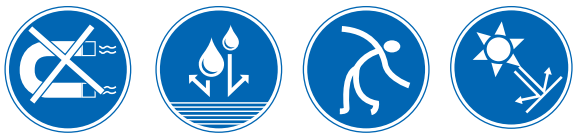
- Available upto 24 fibre count in either single-mode or multi-mode optical fibres
- Unitube design allows minimised weight and eases cable installation
- Small size, fast cable termination and easy cable management
- Optimum solution for last mile application
- Easily removable rugged jacket
- Longitudinal water protection is enabled by water blocking compounds in tube
- UV protected
- Tightly controlled physical parameters
- Combination of fibre types available on request

Typical Construction of Cable



1. LOOSE TUBE WITH FIBRES & GEL
2. PERIPHERAL STRENGTH YARNS
3. OUTER SHEATH





Totally Dielectric | Water Blocked | High Flexibility | UV Protected

Performance Standards

Cable complies to the following main Standards IEC.60794 series, ANSI/ICEA S-87-640, Telcordia GR-20, ITU-T recommendations, CPR for LSZH sheath

Specifications

Physical Characteristics		
Fibre Count	2~12	24
Nominal Cable Diameter (mm) ± 0.3mm	3.8	4.2
Nominal Cable Weight (kg/km) ± 10%	15	18

Mechanical and Environmental Characteristics*				
Test	Standard / Notes	Product Performance		
Max. Tensile Strength (N)	IEC-60794-1-21-E1	100		
Bending Radius	IEC-60794-1-21-E11	Dynamic = 15D, Static = 10D		
Crush Resistance (N/100mm)	IEC-60794-1-21-E3	200		
Impact strength (N.m)	IEC-60794-1-21-E4	5		
Torsion	IEC-60794-1-21-E7	± 180°		
Drip Test	IEC-60794-1-21-E14	30 cm, 70°C, 24 hr		
Temperature Cycling	IEC-60794-1-22-F1	Installation: -10°C to +60°C	Operation: -20°C to +70°C	Storage: -30°C to +70°C
Water Penetration	IEC-60794-1-22-F5B	1m water head, 3m samples, 24 hrs no water leakage		

** After the test, the change in attenuation shall be ≤ 0.05 dB/km. No damage or crack on cable & no fibre break.

Cabled Optical Fibres Characteristics

The optical fibres are in accordance to the specifications ITU-T G.652D andITU-T G.657A1. Refer to specific data sheets for details.

Transmission Characteristics						
Fibre Type	Attenuation coefficient, dB/km (Average/Maximum)			PMD, ps/√km	PMD LDV, ps/√km	Cut-off Wavelength (λcc), nm 1310nm
	1310nm	1550nm	1625nm			
G652D** fibre	≤ 0,35 / 0,36	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0 ,20	≤ 0,1	≤ 1260
G657A1 fibre	≤ 0,35 / 0,36	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0 ,20	≤ 0,1	≤ 1260

** This fibre is also available as a bend insensitive (Sterlite Tech's NOVA fibre)

Fibre Standard Colour Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua
13	14	15	16	17	18	19	20	21	22	23	24
Blue	Orange	Green	Brown	Grey	White	Red	Natural	Yellow	Violet	Pink	Aqua

Packing and Lengths

Packing: Plastic spool/drums
Lengths (tolerance ±5%): 4 km, 6 Km
Note - Customised drum lengths available on request.

Sheath printing details

STERLITE < Fibre Type ><Fibre Count><Product Type ><OFC Laser Symbol ><Telephone Symbol ><Month & Year of Production><Cable ID>< Meter Marking>

Simplex Armored

2d0002:BT002:--TRSE

Product Details

Sterlite Tech™ Simplex armored Cable contains two simplex units protected in a corrugated steel tape armored and overall jacket of Polyethylene. For indoor/ outdoor application Low Smoke Zero Halogen sheath is recommended Simplex, duplex indoor armored cable is composed of flexible tube, Kevlar strengthening member and outer jacket. With excellent mechanical performance of tensile strength and crush resistance, the cable is the ideal choice of cabling, processing patch cord, LAN and other communication applications.

Product Application

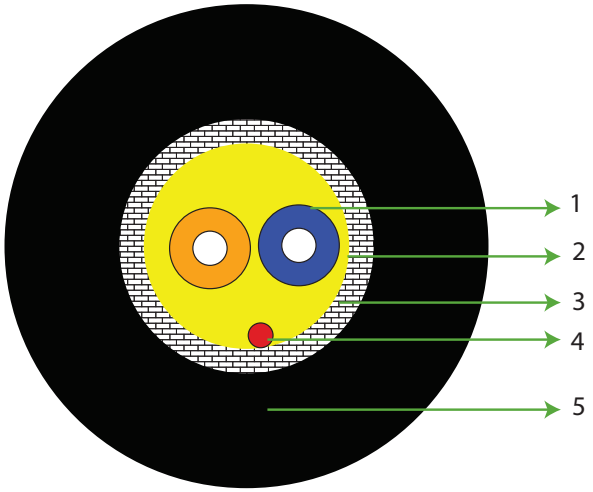
Cable is fit to use in Fibre to the Antenna (FTTA) application which can withstand adverse weather condition.

1. Fibre to the Home solution
2. Process to armored patch cord
3. Cabling on wall, ceil, tube
4. Cabling on outer wall, between building

Features & Benefits

- Available in 1 or 2 fibre count
- Cables are rodent protected
- Easily removable rugged jacket.
- Flexible, light weight, easy to handle & install.
- Good Tensile and crush resistant.
- UV protected.
- Combination of fibre types available on request

Typical Construction of Cable



1. TIGHT BUFFER WITH FIBRE
2. PERIPHERAL STRENGTH MEMBER (ARAMID YARNS)
3. CORRUGATED STEEL TAPE
4. RIPCORD
5. OUTER SHEATH

Performance Standards

Cable complies to the following International Standards IEC.60794 series, ANSI/ICEA S-87-640, Telcordia GR-20, GR 409, ITU-T Recommendations

Specifications

Physical Characteristics				
Fibre Count	2			
Nominal Diameter (mm) ± 0.5mm	8.5			
Nominal Weight (kg/km) ± 10%	45			
Mechanical and Environmental Characteristics*				
Test	Standard / Notes	Product Performance		
Max. Tensile Strength (N)	IEC-60794-1-21-E1	1000		
Bending Radius	IEC-60794-1-21-E11	Dynamic = 15D, Static = 10D		
Crush Resistance (N/100mm)	IEC-60794-1-21-E3	1000		
Impact strength (N.m)	IEC-60794-1-21-E4	25		
Torsion	IEC-60794-1-21-E7	± 180°		
Temperature Cycling	IEC-60794-1-22-F1	Installation: -10°C to +60°C	Operation: -20°C to +70°C	Storage: -30°C to +70°C
Water Penetration	IEC-60794-1-22-F5B	1m water head, 3m samples, 24 hrs no water leakage		

** After the test, the change in attenuation shall be ≤ 0.05 dB/km.No damage or crack on cable & no fibre break.

Cabled Optical Fibres Characteristics

The optical fibres are in accordance to the specifications ITU-T G.652D andITU-T G.657A1. Refer to specific data sheets for details.

Transmission Characteristics						
Fibre Type	Attenuation coefficient, dB/km (Average/Maximum)			PMD, ps/√km	PMD LDV ps/√km	Cut-off Wavelength (λcc), nm 1310nm
	1310nm	1550nm	1625nm			
G652D** fibre	≤ 0,35 / 0,36	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0 ,20	≤ 0,08	≤ 1260
G657A1 fibre	≤ 0,35 / 0,36	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0 ,20	≤ 0,08	≤ 1260

** This fibre is also available as a bend insensitive (Sterlite Tech's NOVA fibre)

Tube / Fibre Standard Colour Code (As per EIA/TIA 598)

1	2
Blue	Orange

Packing and Lengths

Packing: Wooden drums
Lengths (tolerance ±5%): 2km
Note - Customised drum lengths available on request.

Sheath printing details

STERLITE < Fibre Type ><Fibre Count><Product Type ><OFC Laser Symbol ><Telephone Symbol ><Month & Year of Production><Cable ID>< Meter Marking>

Double Jacket Tight Buffer

a10001:DT001:-F--DE

Product Details

Sterlite Tech's Double Jacket Tight Buffer Fibre Optic Cable is an integral part of the end-to-end fibre optic solution, designed to support enhanced data needs along with future advancing network requirements. Cable contains a single fibre, tight-buffered (coated with a 900 micron buffer over the primary buffer coating) with Kevlar (aramid fibre) strength members and LSZH Inner jacket with Kevlar and Outer LSZH Jacket for indoor/outdoor use.

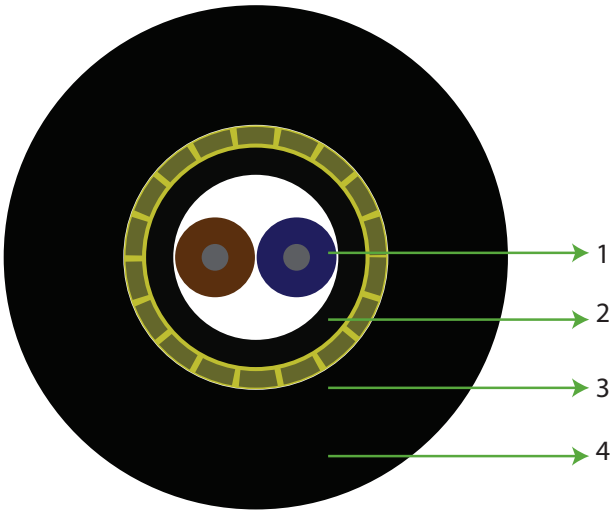
Product Application

Simplex Cables are used mostly for patch cord and backplane applications. Cable is suitable for use in indoor / outdoor FTTH application in duct, horizontal or riser application. Ideal for applications involving safety requirements iin case of fire.

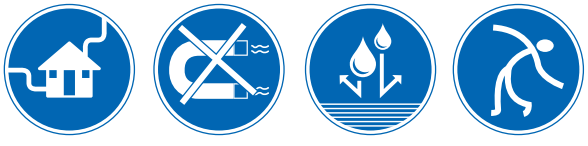
Features & Benefits

- 900 Microns Tight buffered fibres supports fast field installations
- Easy jacket removal using standard tools
- Small & flexible makes it ideal for confined spaces
- Patch panels & work station equipment connections
- Horizontal & riser distribution in open office environment
- Variant available in terms of color & fibre type
- Building interconnection (Campus LAN)
- Links between electronic equipment & fibre patch panel
- Double jackets provides increased tensile strength, mechanical and ultraviolet protection

Typical Construction of Cable



1. COLOURED TIGHT BUFFERED FIBRES
2. INNER SHEATH
3. PHERIPHERAL STRENGTH MEMBERS- ARAMID YARNS
4. OUTER SHEATH



FTTH | Totally Dielectric | Water Blocked | High Flexibility

Performance Standards

Cable complies to the following Standards IEC.60794 series, ANSI/ICEA S-87-640, Telecordia GR-20, ITU-T Recommendations, GR-409, IEC 60332-1, IEC 60332-3-22/24 Flame Standards, CPR certification for LSZH sheath

Specifications

Physical Characteristics	
Fibre Count	Simplex
Nominal Diameter (mm) ± 0.2mm	4.6
Nominal Weight (kg/km) ± 10%	20

Mechanical and Environmental Characteristics		
Test	Standard / Notes	Product Performance
Max. Tensile Strength (N)	IEC-60794-1-21-E1	800
Bending Radius	IEC-60794-1-21-E11	Dynamic = 10D, Static = 15D (D = Cable diameter)
Crush Resistance (N/100mm)	IEC-60794-1-21-E3	500
Temperature Cycling	IEC-60794-1-22-F1	Installation: -0°C to +60°C Operation: -20°C to +70°C Storage: -20°C to +70°C

** After the test, the change in attenuation shall be ≤ 0.05 dB/km.No damage or crack on cable & no fibre break.

Cabled Optical Fibres Characteristics

The optical fibres are in accordance to the specifications ITU-T G.657A1, ITU T 651 OM1, OM2, OM3& OM4. Refer to specific data sheets for details

Attenuation Co-efficient, dB/km(Maximum)				
Fibre Type	850nm	1300nm	1310nm	1550nm
G657A1	-	-	< 0,40	< 0,30
OM1	≤ 3.5	≤ 1.5	-	-
OM2	≤ 3.5	≤ 1.5	-	-
OM3	≤ 3.5	≤ 1.5	-	-
OM4	≤ 3.5	≤ 1.5	-	-

Fibre Standard Colour Code

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Fibre Colour – Natural / Transparent

Jacket Colour Code

Inner Jacket – White
Outer Jacket - Black

Packing and Lengths

Packing: Wooden Reels
Lengths (tolerance ±5%): 500, 1000, 2000 meters
Note - Customised drum lengths available on request.

Sheath printing details

STERLITE < Fibre Type ><Fibre Count><Product Type ><OFC Laser Symbol ><Telephone Symbol ><Month & Year of Production><Cable ID>< Meter Marking>

Indoor FTTX
Fibre Optic Cable

Simplex/Zip Duplex

a10002:RT002:----SE

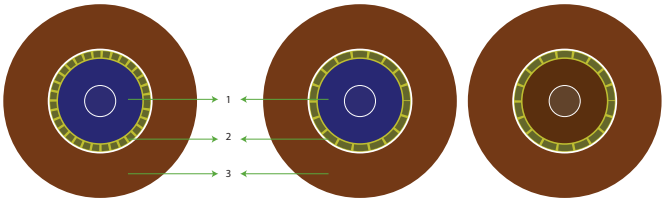
Product Details

Sterlite Tech™ Tight Buffer Simplex / Zip Duplex Cables are an integral part of the end-to-end fibre optic solution, designed to support enhanced data needs along with future advancing network requirements.Simplex Fibre Optic Cable consists of a single fibre,tight-buffered (coated with a 900 micron buffer over the primary buffer coating) with Kevlar (aramid fibre) strength members and jacketed for indoor use. Where in duplex fibre optic cables consist of two fibres joined by a thin connection between the two jackets. Fibre is either single mode or multimode.

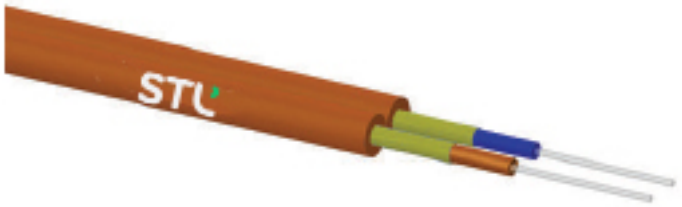
Product Application

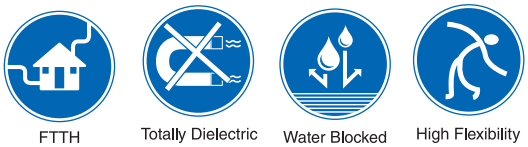
Simplex Cables are used mostly for patch cord and backplane applications. Analog to digital data readouts, interstate highway sensor relays, and automated speed and boundary sensors (for sports applications)
Duplex Cables are used in applications where data needs to be transferred bi-directionally. One fibre transmits data one direction; the other fibre transmits data in the opposite direction. Larger workstations, switches, servers, and major networking hardware tends to require duplex fibre optic cable. Ideal for applications involving safety requirements in case of fire

Typical Construction of Cable



1. COLOURED TIGHT BUFFERED FIBRES
2. INNER SHEATH
3. PHERIPHERAL STRENGTH MEMBERS- ARAMID YARNS
4. OUTER SHEATH





Features & Benefits

- 900 Microns Tight buffered fibres supports fast field installations
- Easy jacket removal using standard tools.
- Small & flexible makes it ideal for confined spaces.
- Patch panels & work station equipment connections.
- Horizontal & riser distribution in open office environment.
- Variant available in terms of color & fibre type.
- Building interconnection (Campus LAN)
- Trunking lines direct to Telecommunication closet.
- Links between electronic equipment & fibre patch panel.
- Available in 2mm and 3mm Diameter with all fibre variants.
- Tightly controlled physical parameters.

Performance Standards

Cable complies to the following Standards IEC.60794 series, ANSI/ICEA S-87-640, Telecordia GR-20, ITU-T Recommendations, GR-409, IEC 60332-1, IEC 60332-3-22/24 Flame Standards

Specifications

Physical Characteristics					
Fibre Count		Simplex	Simplex	Duplex	Duplex
Nominal Diameter (mm) ± 0.2mm		3.0	2.0	3.0 x 6.2	2.0 x 4.2
Nominal Weight (kg/km) ± 10%		9.0	4.0	18.0	8.0
Mechanical and Environmental Characteristics*					
Test	Standard / Notes	Product Performance			
Max. Tensile Strength (N)	IEC-60794-1-21-E1	150	100	200	150
Bending Radius	IEC-60794-1-21-E11	Dynamic = 10D, Static = 15D (D = Cable diameter)			
Crush Resistance (N/100mm)	IEC-60794-1-21-E3	500	300	500	300
Temperature Cycling	IEC-60794-1-22-F1	Installation: -10°C to +60°C	Operation: -20°C to +70°C	Storage: -30°C to +70°C	

** After the test, the change in attenuation shall be ≤ 0.05 dB/km. No damage or crack on cable & no fibre break.

Cabled Optical Fibres Characteristics

The optical fibres are in accordance to the specifications ITU-T G.657A1, ITU T 651 OM1, OM2, OM3& OM4. Refer to specific data sheets for details

Attenuation coefficient, dB/km (Average/Maximum)				
Fibre Type	850nm	1300nm	1310nm	1550nm
G657A1	-	-	≤ 0,40	≤ 0,30
OM1	≤ 3.5	≤ 1.5	-	-
OM2	≤ 3.5	≤ 1.5	-	-
OM3	≤ 3.5	≤ 1.5	-	-
OM4	≤ 3.5	≤ 1.5	-	-

Fibre Colour – Natural / Tranparent

Simplex / Duplex Standard Colour Code –

SM – Yellow, OM1 - Orange, OM2 – Orange, OM3 – Aqua, OM4 - Violet

Packing and Lengths

Packing: Wooden Reels

Lengths (tolerance ±5%): 500, 1000, 2000 meters

Note - Customised drum lengths available on request.

Sheath printing details

STERLITE < Fibre Type ><Fibre Count><Product Type ><OFC Laser Symbol ><Telephone Symbol ><Month & Year of Production><Cable ID>< Meter Marking>

Tight Buffer Riser

a10024:RT024:-F--SE

Product Details

Sterlite Tech™ Tight Buffer Riser Cables are an integral part of the end-to-end fibre optic solution, designed to support enhanced data needs along with future advancing network requirements.These cables are intended for riser application in multi storey buildings. Tight buffered fibres are reinforced with aramid yarns and sheathed with Low Smoke Zero Halogen (LSZH). This cable is suitable for both indoor / outdoor application with standard commercial type connectors.

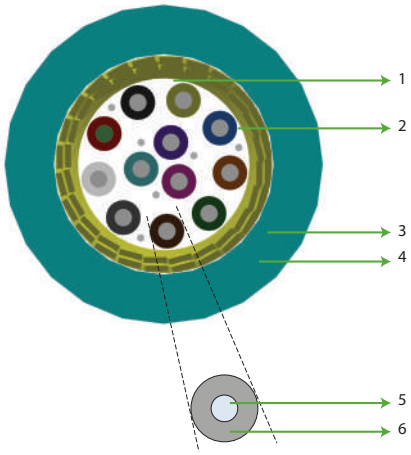
Product Application

These cables are specifically designed for indoor/ outdoor applications, mainly used in intra-building backbones, routing between telecommunications rooms and as a riser cable in Multi Storey buildings.

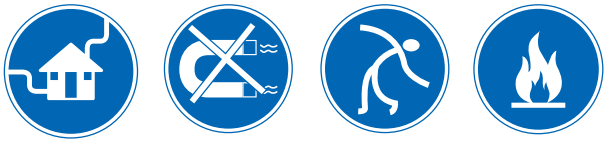
Features & Benefits

- Available upto 24 fibre count in either Single Mode and Multimode Optical Fibres
- 900 Microns Tight buffered fibres supports fast field installations
- Reduce installation time and costs.
- Easy jacket removal using standard tools.
- Flexible and Fire retardant outer sheath with aramid yarns as tensile elements helps in easy installation in space constrained areas
- LSZH sheath makes cable suitable for higher fire safety requirement
- Small cable diameter & lightweight
- Requires no grounding or bonding due to all-dielectric construction
- Tightly controlled physical parameters.
- Combination of fibre types available on request
- 24F Available with Stripe marked 24 tight buffers or with 2 Bundle binder design.
- Cable also available with Nylon Tight buffer for harsh indoor / outdoor application

Typical Construction of Cable



1. LSZH TIGHT BUFFER WITH FIBRE
2. STRENGTH YARNS (ARAMID YARNS)
3. RIPCORD
4. OUTER SHEATH
5. NATURAL FIBRE (UNCOLORED)
6. TIGHT BUFFER



FTTH | Totally Dielectric | High Flexibility | Flame retardant

Performance Standards

Cable complies to the following Standards IEC.60794 series, ANSI/ICEA S-87-640, Telecordia GR-20, ITU-T Recommendations, GR-409, IEC 60332-1, IEC 60332-3-22/24 Flame Standards

Specifications

Physical Characteristics				
Fibre Count	6	8	12	24
Nominal Diameter (mm) ± 0.3mm	6.0	7.0	7.5	9.5
Nominal Weight (kg/km) ± 10%	35.0	45.0	50.0	80.0

Mechanical and Environmental Characteristics*				
Test	Standard / Notes	Product Performance		
Max. Tensile Strength (N)	IEC-60794-1-21-E1	660		
Bending Radius	IEC-60794-1-21-E11	Dynamic = 15D, Static = 20D (D = Cable diameter)		
Crush Resistance (N/100mm)	IEC-60794-1-21-E3	500		
Torsion	IEC-60794-1-21-E7	± 180°		
Temperature Cycling	IEC-60794-1-22-F1	Installation: -10°C to +60°C	Operation: -20°C to +70°C	Storage: -30°C to +70°C

** After the test, the change in attenuation shall be ≤ 0.01 dB/km. for SM and 0.3dB/km for MM fibre

Cabled Optical Fibres Characteristics

The optical fibres are in accordance to the specifications ITU-T G.657A1, ITU T 651 OM1, OM2, OM3& OM4. Refer to specific data sheets for details

Attenuation coefficient, dB/km (Average/Maximum)				
Fibre Type	850nm	1300nm	1310nm	1550nm
G657A1	-	-	≤ 0,40	≤ 0,30
OM1	≤ 3.5	≤ 1.5	-	-
OM2	≤ 3.5	≤ 1.5	-	-
OM3	≤ 3.5	≤ 1.5	-	-
OM4	≤ 3.5	≤ 1.5	-	-

Fibre Colour – Natural / Tranparent

Simplex / Duplex Standard Colour Code –

SM – Yellow, OM1 - Orange, OM2 – Orange, OM3 – Aqua, OM4 - Violet

Tight Buffer Colour Code

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

* For more than 12 tubes, single or double stripes marking are done as per EIA/TIA 598.

Packing and Lengths

Packing: Wooden Reels with protection

Lengths (tolerance ±5%): 500,1000, 2000 mtrs

Note - Customised drum lengths available on request.

Sheath printing details

STERLITE < Fibre Type ><Fibre Count><Product Type ><OFC Laser Symbol ><Telephone Symbol ><Month & Year of Production><Cable ID>< Meter Marking>

Mini Breakout

a10024:DT024:-F--SE

Product Details

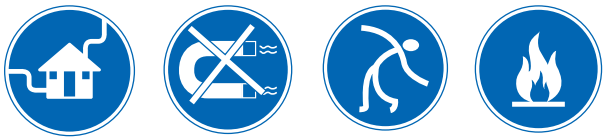
Sterlite Tech™ Mini Breakout Cables are an integral part of the end-to-end fibre optic solution, designed to support enhanced data needs along with future advancing network requirements.These cables are intended for indoor / outdoor application with mid fibre tapping facility in multi-storey buildings. Cable contains an acrylic coated optical fibre surrounded by aramid yarns and tight buffered with LSZH material; such tight buffers are reinforced with aramid yarns and sheathed with Low Smoke Zero Halogen (LSZH). This cable is suitable for indoor FTTH applications through ducts in multi-storey building.

Product Application

The individual tight buffer of the cable makes the installation easier to tap the tight buffer to extract them in the riser boxes and to strip the fibre. The cable facilitates quick mid spanning of the cable. Cable is suitable for central offices/data centers to connect network devices to optical distribution frames.

Typical Construction of Cable

1. SIMPLEX WITH FIBRE
2. OUTER SHEATH



Features & Benefits

- Available in 12 and 24 fibre count in either Single Mode or Multimode Optical Fibres
- A single tight buffer can be used, without disturbing other tight buffers in cable
- Reduce installation time and costs
- Breakout material exhibits easy strip property ensures fast and easy access to fibre
- Easy jacket removal using standard tools
- LSZH Sheath makes cable suitable for higher fire safety requirement
- Flexible outer sheath with aramid yarns as tensile elements helps in easy installation in space constrained areas
- Small cable diameter & lightweight
- Requires no grounding or bonding due to all-dielectric construction
- Tightly controlled physical parameters
- Combination of fibre types available on request
- Tightly controlled physical parameters
- Combination of fibre types available on request

Performance Standards

Cable complies to the following International Standards IEC.60794 series, ANSI/ICEA S-87-640, ITU-T Recommendations, GR-409, IEC 60332-1, IEC 60332-3-22/24 Flame Standards,

Specifications

Physical Characteristics				
Fibre Count		12		24
Nominal Diameter (mm) ± 0.3mm		8.5		9.5
Nominal Weight (kg/km) ± 10%		65.0		70
Mechanical and Environmental Characteristics				
Test	Standard / Notes	Product Performance		
Max. Tensile Strength (N)	IEC-60794-1-21-E1	500 N		
Bending Radius	IEC-60794-1-21-E11	Dynamic = 10D, Static = 15D (D = Cable diameter)		
Crush Resistance (N/100mm)	IEC-60794-1-21-E3	500		
Torsion	IEC-60794-1-21-E7	± 180°		
Temperature Cycling	IEC-60794-1-22-F1	Installation: -5°C to +55°C	Operation: -5°C to +55°C	Storage: -5°C to +60°C

** After the test, the change in attenuation shall be ≤ 0.05 dB/km. No damage or crack on cable & no fibre break.

Cabled Optical Fibres Characteristics

The optical fibres are in accordance to the specifications ITU-T G.657A1, ITU T 651 OM1, OM2, OM3 & OM4. Refer to specific data sheets for details

Attenuation Co-efficient, dB/km (Maximum)				
Fibre Type	850nm	1300nm	1310nm	1550nm
G657A1	-	-	≤ 0,40	≤ 0,30
OM1	≤ 3.5	≤ 1.5	-	-
OM2	≤ 3.5	≤ 1.5	-	-
OM3	≤ 3.5	≤ 1.5	-	-
OM4	≤ 3.5	≤ 1.5	-	-

Fibre Colour – Natural / Transparent

Cable Colour Code –

SM – Yellow, OM1 - Orange, OM2 – Orange, OM3 – Aqua, OM4 - Violet

Mini Breakout Colour Code

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

* For more than 12 tubes, single or double stripes marking are done as per EIA/TIA 598.

Packing and Lengths

Packing: Wooden Reels

Lengths (tolerance ±5%): 500, 1000, 2000 mtrs

Note - Customised drum lengths available on request.

Sheath printing details

STERLITE < Fibre Type ><Fibre Count><Product Type ><OFC Laser Symbol ><Telephone Symbol ><Month & Year of Production><Cable ID>< Meter Marking>

Easy Strip Flat

a10002:DT002:-F--SE

Product Details

Sterlite Tech™ Drop-LITE™ Easy Strip Flat Cable is an enhanced performance FTTH solution, constructed with one/two single mode /bend sensitive fibres, protected by two strength members and covered with outer sheath which makes the cable robust and installation friendly. This cable is very light and easy to install and strip. Industry standard connectors can be used for direct termination because of standard 250µm fibre size. Colored fibre is for easy identification. Low Smoke Zero Halogen Compound Jacket is appropriate for indoor use.

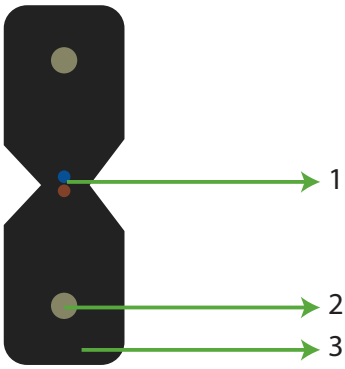
Product Application

These cables can be used for indoor applications and last link for the FTTX Networks, Indoor riser level and plenum level cable distribution and for connecting Main distribution frame to consolidation point in home, apartment or offices

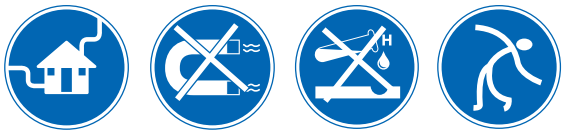
Features & Benefits

- Available in 1 or 2 fibre count in either single-mode or multi-mode optical fibres
- Special low-bend-sensitivity fibre provides high bandwidth and excellent communication transmission property
- Two parallel strength members ensure good performance of crush resistance to protect the fibre
- Simple structure, light weight and high practicability
- More bandwidth, reliability and low cost
- Novel flute design, easily strip and splice, simplify the installation and maintenance
- Low smoke, zero halogen and flame retardant sheath
- Industry standard connectors can be used for direct Termination
- Tightly controlled physical parameters
- Combination of fibre types available on request

Typical Construction of Cable



1. COLORED FIBRES
2. EMBEDDED STRENGTH MEMBERS
3. OUTER SHEATH



Performance Standards

Cable Complies to the following main Standards IEC.60794 series, ANSI/ICEA S-87-640, Telcordia GR-20, ITU-T Recommendations, GR-409, RoHS

Specifications

Physical Characteristics				
Fibre Count		1-2		
Nominal Cable Height x Widthr (mm) ± 0.2mm		2.0 X 3.0		
Nominal Cable Weight (kg/km) ± 10%		10		
Mechanical and Environmental Characteristics				
Test	Standard / Notes	Product Performance		
Max. Tensile Strength (N)	IEC-60794-1-21-E1	150		
Bending Radius	IEC-60794-1-21-E11	Dynamic = 15D, Static = 10D		
Crush Resistance (N/100mm)	IEC-60794-1-21-E3	1000		
Impact strength (N.m)	IEC-60794-1-21-E4	4		
Torsion	IEC-60794-1-21-E7	± 180°		
Drip Test	IEC-60794-1-21-E14	30 cm, 70°C, 24 hr		
Temperature Cycling	IEC-60794-1-22-F1	Installation: -10°C to +60°C	Operation: -20°C to +70°C	Storage: -30°C to +70°C
Water Penetration	IEC-60794-1-22-F5B	1m water head, 3m samples, 24 hrs no water leakage		

** After the test, the change in attenuation shall be ≤ 0.05 dB/km. No damage or crack on cable & no fibre break.

Cabled Optical Fibres Characteristics

The optical fibres are in accordance to the specifications ITU-T G.657A1. Refer to specific data sheets for details.

Transmission Characteristics						
Fibre Type	Attenuation coefficient, dB/km (Average/Maximum)			PMD, ps/√km	PMD LDV ps/√km	Cut-off Wavelength (λcc), nm 1310nm
	1310nm	1550nm	1625nm			
G657A1 fibre	≤ 0,4	≤ 0,3	≤ 0,4	≤ 0 ,20	≤ 0,1	≤ 1260

Tube / Fibre Standard Colour Code (As per EIA/TIA 598)

1	2
Blue	Orange

Packing and Lengths

Packing: Plastic drums
Lengths (tolerance ±5%): 500, 1000 Mtrs
Note - Customised drum lengths available on request.

Sheath printing details

STERLITE < Fibre Type ><Fibre Count><Product Type ><OFC Laser Symbol ><Telephone Symbol ><Month & Year of Production><Cable ID>< Meter Marking>

Specialty
Fibre Optic Cable

Olympus Lite™ Fire Resistant

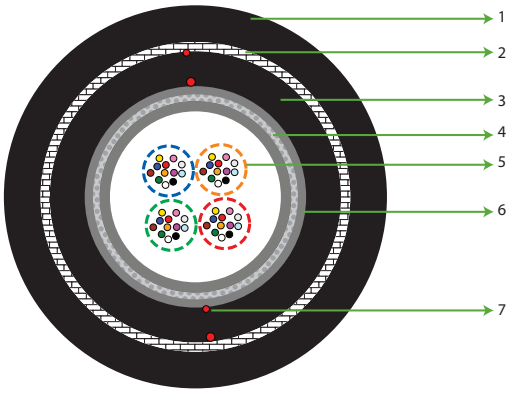
2d0048:BL048:WFTRD-

Patent numbers
IN 201721018968

Product Details

Sterlite Tech™ Olympus Lite™ Fire resistant Fibre Optic Cablecomplies with major industry standards, with safety at its core and meeting the customer's individual specification safety. The various fire standards that are aimed to not only protect against flame propagation, drip and toxicity, but also to protect internally the fibres, so that circuit integrity is maintained, as it is necessary to keep exit signs, fire doors, cctv etc operational for as long as possible to ensure escape routes are visible and accessible in the event of fire. This cable consists of color coded optical fibre s placed in a central tube along with gel to protect from water ingress andMica tape is helically wounded on the Central tube as a fire-resistant layer and excellent resistance to heat. Peripheral strength members are distributed over the Mica tape and enclosed by inner layer of Halogen sheath. Corrugated Steel Tape armor with Mica tape surrounds the inner sheath with fire resistant jacket bonded to the armor layer making the cable robust and installation friendly. This cable guarantee maximum safety ensuring that strategically installations continue to operate during a fire or in high temperature environments up to 950° C

Typical Construction of Cable



1. OUTER SHEATH
2. MICA TAPE + CORRUGATED ECCS TAPE
3. INNER SHEATH
4. MICA TAPE + WATER SWELLABLE YARNS
5. CENTRAL TUBE WITH FIBRES WITH BUNDLE BINDERS
6. GLASS YARNS LAYER OVER MICA TAPE
7. RIPCORD(S)

Product Application

- Withstands extremely high temperatures and fire conditions and suitable for hazardous or heavy construction zones including heavy traffic area, wind farm developments, pipelines, oil and gas fields, heavy industrial sites and a variety of additional harsh environments.
- Mainly used for Metro rail / railway networks.
- Complies with major industry standards including BS EN 50200, BS 8434-2:2003, with safety at its core
- Meets customer's individual specification safety like Data transmission security by maintaining circuit integrity under fire conditions, withstanding high temperature and longevity service

Features & Benefits

- Available up to 48 fibre count in either single-mode or multi-mode optical fibres
- Circuit (insulation) Integrity in accordance with BS 8434 1:2003 & BS 8434-2:2003 + A2:2009
- Excellent mechanical performance with high tensile properties.
- Very high crush and impact resistant cable, suitable for harsh installation environment
- Steel tape armor and LSZH jacket provide rodent protection along with improved crush and impact protection
- Flexible, easy to handle &install.
- UV protected.
- Tightly controlled physical parameters.

Performance Standards

Cable Complies to the following main Standards IEC.60794 series, ANSI/ICEA S-87-640, Telcordia GR-20, ITU-T Recommendations,IEC 60332-1,IEC 60332-3, IEC 60754, EN 61034-1:2005, BS EN 50200, BS 8434-2:2003

Specifications

Physical Characteristics	
Fibre Count	48
Nominal Cable Diameter (mm) ± 1.0mm	18.0
Nominal Cable Weight (kg/km) ± 10%	345

Mechanical and Environmental Characteristics*		
Test	Standard / Notes	Product Performance
Maximum Operating Tension	IEC-60794-1-21-E1	3000 N
Bending Radius	IEC-60794-1-21-E11	Dynamic = 20D, Static = 15D
Crush Resistance (N/100mm)	IEC-60794-1-21-E3	4000
Impact strength (N.m)	IEC-60794-1-21-E4	25
Torsion	IEC-60794-1-21-E7	± 180°
Kink Test	IEC-60794-1-21-E1	10D
Temperature Cycling	IEC-60794-1-22-F1	Installation: -20°C to +60°C | Operation: -40°C to +70°C | Storage: -40°C to +70°C
Water Penetration	IEC-60794-1-22-F5B	1m water head, 3m samples, 24 hrs no water leakage

** After the test, the change in attenuation shall be ≤ 0.05 dB/km. No damage or crack on cable & no fibre break.

Cabled Optical Fibres Characteristics

The optical fibres are in accordance to the specifications ITU-T G.652D. Refer to specific data sheets for details.

Transmission Characteristics						
Fibre Type	Attenuation coefficient, dB/km (Average/Maximum)			PMD, ps/√km	PMD LDV, ps/√km	Cut-off Wavelength (λcc), nm 1310nm
	1310nm	1550nm	1625nm			
G652D**	≤ 0,35 / 0,36	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0 ,20	≤ 0,1	≤ 1260

** This fibre is also available as a bend insensitive (Sterlite Tech's NOVA fibre)

Fibre Standard Colour Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Packing and Lengths

Packing: Wooden drums
Lengths (tolerance ±5%): 2km
Note - Customised drum lengths available on request.

Sheath printing details

STERLITE < Fibre Type ><Fibre Count><Product Type ><OFC Laser Symbol ><Telephone Symbol ><Month & Year of Production><Cable ID>< Meter Marking>

All Terrian Intrusion Protection

2d0056:DR056:W---D-

Patent numbers
IN 201711045538

Product Details

Sterlite Tech™ All Terrian Intrusion Proof Fibre Optic Cable is a novel design for military communications applications and fool proof intruder protection for data hacking.The optical fibres are arranged into ribbon units by placing the fibres in a flat array of 12 color-coded fibres bonded together by a UV-curable matrix material. A dual stranding layer of loose tubes containing single fibre around the thermoplastic sheath of central tube containing ribbon fibres has been provided as intrusion proofing for the network. Cable core is surrounded with water-swellable tape, peripheral strength members and anti-buckling strength members are provided in form of two diagonally opposite strength members embedded inside the thermoplastic outer sheath.

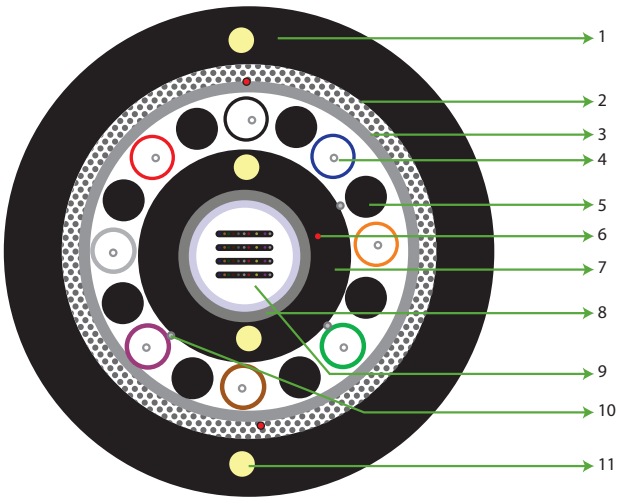
Product Application

This cable can detect intrusion / data hacking at various sensitive points by securing transmission through ribbon structure in inner core and surveillance by sensory layer below the outer sheath.This cable combines robust performance for duct installations with the productivity of high-count mass fusion splicing. The ribbon design delivers the highest fibre density in the most compact cable package possible and offers an outstanding solution for demanding high-growth, high-bandwidth communications applications.

Features & Benefits

- Available up to 56 fibre count in combination of fibre types
- Robust, Multi-layered construction
- Ribbon cable can be prepared and spliced much more rapidly
- Precise fibre and ribbon geometries result in excellent mass-fusion splicing yields.
- Fibre ribbons are individually marked for easy identification.
- These are easy to install due to dry water-blocking design
- Dry water-blocking technology for gel free core helps in quicker end preparation.
- Easily removable rugged Thermoplastic jacket.
- Flexible, light weight, easy to handle &install.
- Tensile and crush resistant.
- UV protected.
- Tightly controlled physical parameters.
- Reduce splicing time
- Extremely robust design

Typical Construction of Cable



1. OUTER SHEATH
2. PERIPHERAL STRENGTH MEMBERS
3. WATER SWELLABLE TAPE
4. LOOSE TUBE WITH FIBRES & JELLY
5. SENSORY LAYER FILLERS
6. RIPCORD(S)
7. INNER SHEATH
8. WATER SWELLABLE TAPE
9. LOOSE TUBE WITH RIBBON & JELLY
10. WATER SWELLABLE YARNS
11. EMBEDDED STRENGTH MEMBER

Performance Standards

Cable Complies to the latest issue of following main Standards IEC.60794 series, ANSI/ICEA S-87-640, Telcordia GR-20, ITU-T Recommendations

Specifications

Physical Characteristics		
Fibre Count	48	56
No. of Ribbon	4	4
Fibres/Ribbon	12	12
Nominal Cable Diameter (mm) ± 0.5mm	15.5	19.0
Nominal Cable Weight (kg/km) ± 10%	200	260

Mechanical and Environmental Characteristics*				
Test	Standard / Notes	Product Performance		
Maximum Tensile Tension	IEC-60794-1-21-E1	3000 N	3000 N	
Bending Radius	IEC-60794-1-21-E11	Dynamic = 20D, Static = 15D		
Crush Resistance (N/100mm)	IEC-60794-1-21-E3	4000	4000	
Impact strength (N.m)	IEC-60794-1-21-E4	25		
Torsion	IEC-60794-1-21-E7	± 180°		
Drip Test	IEC-60794-1-21-E14	30 cm, 70°C, 24 hr		
Temperature Cycling	IEC-60794-1-22-F1	Installation: -10°C to +60°C	Operation: -20°C to +70°C	Storage: -20°C to +70°C
Water Penetration	IEC-60794-1-22-F5B	1m water head, 3m samples, 24 hrs no water leakage		

** After the test, the change in attenuation shall be ≤ 0.05 dB/km. No damage or crack on cable & no fibre break.

Cabled Optical Fibres Characteristics

The optical fibres are in accordance to the specifications ITU-T G.652D and ITU-T 6.655. Refer to specific data sheets for details.

Transmission Characteristics						
Fibre Type	Attenuation coefficient, dB/km (Average/Maximum)			PMD, ps/√km	PMD LDV, ps/√km	Cut-off Wavelength (λcc), nm 1310nm
	1310nm	1550nm	1625nm			
G652D	≤ 0,35 / 0,36	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0 ,20	≤ 0,1	≤ 1260
G655	-	≤ 0,22 / ≤ 0,24	≤ 0,24 / ≤ 0,26	≤ 0 ,20	≤ 0,15	≤ 1450

Fibre Standard Colour Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Tube Standard Color Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Packing and Lengths

Packing: Wooden drums
Lengths (tolerance ±5%): 2km
Note - Customised drum lengths available on request.

Sheath printing details

STERLITE < Fibre Type ><Fibre Count><Product Type ><OFC Laser Symbol ><Telephone Symbol ><Month & Year of Production><Cable ID>< Meter Marking>

Tactical Unarmored

2d0008:DT008:----S-

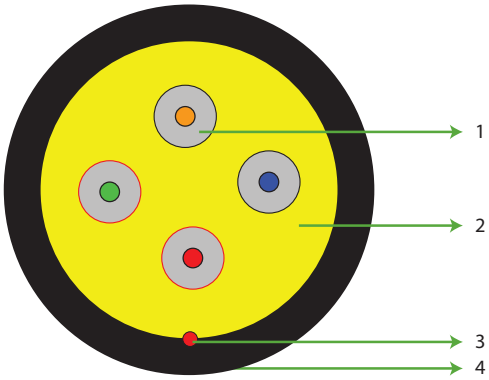
Product Details

Sterlite Tech™ Field Deployable Tactical Cables are intended for military communications, remote control links and operation in severe environments and wide temperature range. The construction is of rugged tight buffered fibres are reinforced with aramid yarns and sheathed with UV, chemical and abrasion-resistant polyurethane (TPU). This cable is compatible with most military grade as well as with standard commercial type connectors.

Product Application

These cables are specifically designed for extreme environmental conditions- temperature, humidity, ice, fungus, and fluid immersion. They well suited for repeated deployments on field communication applications from backpack or vehicle mounted reels. Mainly used for Optical feeds (traffic and video control) in rugged and harsh environments

Typical Construction of Cable



1. TIGHT BUFFER WITH FIBRE
2. PERIPHERAL STRENGTH YARNS
3. RIPCORD
4. OUTER SHEATH

Totally Dielectric | High Flexibility | UV Protected

Features & Benefits

- Available upto 8 fibre count in either single-mode or multi-mode optical fibres
- Robust and flexible design because of outer sheath with abrasion resistant TPU material and aramid yarns as tensile elements helps in easy installation in space constrained areas
- Small cable diameter, lightweight helps for deploying from backpack and vehicle mounted rack and Re-deployable.
- Versatility, cable can used globally everywhere and can be rewinded back on carrying reel to be re-deployed on new location.
- No restrictions on laying / installation method (can be underground, duct, aerial) but usually is laid on the field and fixed in place with short poles / rods and fittings.
- Total solution package contains connectorized cables field carrying and deploying solution tools.
- Requires no grounding or bonding due to all-dielectric construction
- Tightly controlled physical parameters.
- Combination of fibre types available on request

Performance Standards

Cable Complies to the following main Standards IEC.60794 series, ANSI/ICEA S-87-640, Telcordia GR-20, ITU-T Recommendations, GR-409,

Specifications

Physical Characteristics		
Fibre Count	4	8
Nominal Cable Diameter (mm) ± 0.5mm	5.5	7.2
Nominal Cable Weight (kg/km) ± 10%	30	40

Mechanical and Environmental Characteristics*				
Test	Standard / Notes	Product Performance		
Max. Tensile Strength (N)	IEC-60794-1-21-E1	Long Term – 700N Short Term -1600N		
Bending Radius	IEC-60794-1-21-E11	Dynamic = 8cm, Static = 12cm		
Crush Resistance (N/100mm)	IEC-60794-1-21-E3	1000		
Breaking Load (N)	IEC-60794-1-21-E4	≥ 3500		
Torsion	IEC-60794-1-21-E7	± 180°		
Drip Test	IEC-60794-1-21-E14	30 cm, 70°C, 24 hr		
Temperature Cycling	IEC-60794-1-22-F1	Installation: -10°C to +40°C	Operation: -10°C to +40°C	Storage: -30°C to +70°C
Water Penetration	IEC-60794-1-22-F5B	1m water head, 3m samples, 24 hrs no water leakage		

** After the test, the change in attenuation shall be ≤ 0.05 dB/km. No damage or crack on cable & no fibre break.

Cabled Optical Fibres Characteristics

The optical fibres are in accordance to the specifications ITU-T G.652D andITU-T G.657A1. Refer to specific data sheets for details.

Transmission Characteristics						
Fibre Type	Attenuation coefficient, dB/km (Average/Maximum)			PMD, ps/√km	PMD LDV, ps/√km	Cut-off Wavelength (λcc), nm 1310nm
	1310nm	1550nm	1625nm			
G652D** fibre	≤ 0,4	≤ 0,3	≤ 0,4	≤ 0 ,20	≤ 0,10	≤ 1260
G657A1 fibre	≤ 0,4	≤ 0,3	≤ 0,4	≤ 0 ,20	≤ 0,10	≤ 1260

** This fibre is also available as a bend insensitive (Sterlite Tech's NOVA fibre)

Tube / Fibre Standard Colour Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Packing and Lengths

Packing: Wooden drums
Lengths (tolerance ±5%): 500, 1000, 2000 Mtrs
Note - Customised drum lengths available on request.

Sheath printing details

STERLITE < Fibre Type ><Fibre Count><Product Type ><OFC Laser Symbol ><Telephone Symbol ><Month & Year of Production><Cable ID>< Meter Marking>

Tactical Armored

2d0004:DL004:W-WRS-

Product Details

Sterlite Tech™ Field Deployable Tactical Cables are intended for military communications, remote control links and operation in severe environments and wide temperature range. The construction is of Central Stainless steel loose tube with fibres reinforced with stainless steel wires and sheathed with nylon black. This cable is compatible with most military grade as well as with standard commercial type connectors.

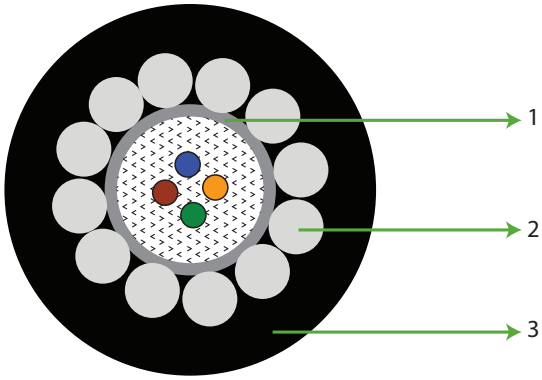
Product Application

These cables are specifically designed for extreme environmental conditions- temperature, humidity, ice, fungus, and fluid immersion. They can be used for battlefield, tactical, defense and military or civil applications. They can be rapidly deployed in harsh environment.

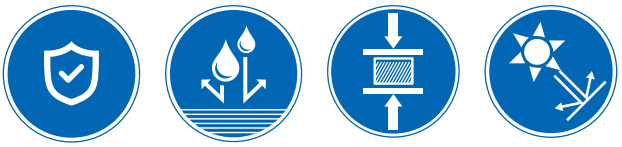
Features & Benefits

- Available in 4 fibre count in either single-mode or multi-mode optical fibres
- These cables are designed with a rugged, crush resistant, durable jacket for superior flexibility and abrasion resistance across a wide temperature range,
- Light weight fibre optic cables used for deployment in military applications, electronic news gathering, outdoor broadcast, tactical security and mobile applications.
- High tensile stainless steel wires and with outer PA sheath provides high crush resistance and high permissible tensile performance while maintaining good flexibility
- Total solution package contains connectorized cables field carrying and deploying solution tools
- Tightly controlled physical parameters.
- Combination of fibre types available on request

Typical Construction of Cable



1. STAINLESS STEEL TUBE WITH FIBRES & GEL
2. STAINLESS STEEL WIRES
3. OUTER SHEATH



Performance Standards

Cable complies to the following main Standards IEC.60794 series, ANSI/ICEA S-87-640, Telcordia GR-20, ITU-T Recommendations, GR-409, JSS 6020-02: 2008,

Specifications

Physical Characteristics				
Fibre Count		4		
Nominal Cable Diameter (mm) ± 0.5mm		3.8		
Nominal Cable Weight (kg/km) ± 10%		25		
Mechanical and Environmental Characteristics*				
Test	Standard / Notes	Product Performance		
Max. Tensile Strength (N)	IIEC-60794-1-21-E1	900		
Bending Radius	IEC-60794-1-21-E11	Dynamic = 10cm, Static = 4.6cm		
Crush Resistance (N/100mm)	IEC-60794-1-21-E3	10000		
Breaking Load (N)	IEC-60794-1-21-E4	> 3500		
Torsion	IEC-60794-1-21-E7	± 180°		
Drip Test	IEC-60794-1-21-E14	30 cm, 70°C, 24 hr		
Temperature Cycling	IEC-60794-1-22-F1	Installation: -10°C to +40°C	Operation: -10°C to +40°C	Storage: -30°C to +70°C
Water Penetration	IEC-60794-1-22-F5B	1m water head, 3m samples, 24 hrs no water leakage		

** After the test, the change in attenuation shall be < 0.05 dB/km. No damage or crack on cable & no fibre break.

Cabled Optical Fibres Characteristics

The optical fibres are in accordance to the specifications ITU-T G.652D andITU-T G.657A1. Refer to specific data sheets for details.

Transmission Characteristics						
Fibre Type	Attenuation coefficient, dB/km (Average/Maximum)			PMD, ps/√km	PMD LDV, ps/√km	Cut-off Wavelength (λcc), nm 1310nm
	1310nm	1550nm	1625nm			
G652D** fibre	≤ 0,4	≤ 0,3	≤ 0,4	≤ 0 ,20	≤ 0,1	≤ 1260
G657A1 fibre	≤ 0,4	≤ 0,3	≤ 0,4	≤ 0 ,20	≤ 0,1	≤ 1260

** This fibre is also available as a bend insensitive (Sterlite Tech's NOVA fibre)

Fibre Standard Colour Code

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Packing and Lengths (As per EIA/TIA 598)

Packing: Wooden drums with protection
Lengths (tolerance ±5%): 500, 1000, 2000 mtrs
Note - Customised drum lengths available on request.

Sheath printing details

STERLITE < Fibre Type ><Fibre Count><Product Type ><OFC Laser Symbol ><Telephone Symbol ><Month & Year of Production><Cable ID>< Meter Marking>

Micro-LITE Multitube Single Jacket

2d0288:DL036:X---SE

Patent numbers

- IN 201711041618
- IN 201721036545
- IN 201621010854
- EP 16176636.5
- EP 16176627.4
- IN 201621010853

Product Details

Sterlite Tech™ Micro-LITE Multitube Single Jacket Fibre Optic Cables are typically used in micro duct or aerial drop installation applications. This cable is a stranded micro loose tube cable with optical fibre placed inside robust buffer tubes stranded around a fibre reinforced plastic (FRP) central strength member. In addition to optical fibres, the buffer tubes contain water blocking gel and the cable core is surrounded with water-swellable tape to prevent water ingress in the interstices of cable core. The cable core is surrounded with thermoplastic sheath or Polyamide jacket making the cable robust and installation friendly.

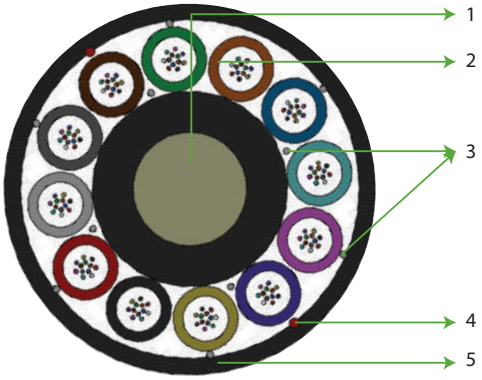
Product Application

These cables are typically used for Access / Metro and (air blown) Drop cabling for FTTx networks, like Fibre to the Home (FTTH). Microcables can utilise existing and new duct systems more effectively by accommodating more fibres in given sub-duct network.

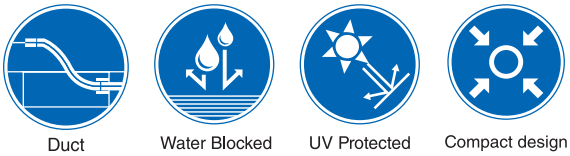
Features & Benefits

- Available up to 576 fibre count in single mode optical fibre
- As compared to conventional cable, Micro Cable diameter is less and thereby reducing installation costs
- Excellent solutions for new and existing duct systems Typically blown into micro ducts previously installed into large ducts
- Maximizes large duct and rights-of-way utilisation
- Reduced size and weight aids transportation, handling, and blowing distances
- Multitube design with ripcords for easy and quick mid-span access
- Dry water-blocking technology for gel free core helps in quicker end preparation
- Easily removable rugged thermoplastic jacket
- Flexible, light weight, easy to handle & install
- Tensile and crush resistant
- UV protected
- Tightly controlled physical parameters
- Combination of fibre types available on request

Typical Construction of Cable



1. CENTRAL STRENGTH MEMBER
2. MICRO LOOSE TUBE WITH FIBRES & GEL
3. WS YARNS
4. RIPCORD(S)
5. OUTER SHEATH



Performance Standards

Cable complies to the latest issue of following main Standards IEC.60794 series, ANSI/ICEA S-87-640, Telcordia GR-20, ITU-T Recommendations, CPR certification for LSZH sheath

Fibre Count	Design	Fibres per Tube	Sheath Material	Nominal Cable Diameter (mm) + 0.3mm	Duct Size, OD/ ID, mm
250 Micron Optical Fibre					
12F-72F	72F(12FX6 LT) Micro	12	HDPE	5.6	(10/8) or (12/8)
96F	96F(12Fx8 LT) Bullet series		HDPE	6.0	(10/8) or (12/8)
144F	144F(12FX12 LT) Micro-Enhanced		HDPE	7.9	(12/10) or (14/10)
192F	192F(12Fx(5+11)LT) Bullet series		HDPE	8.0	(12/10) or (14/10)
216F	216F(12Fx(6+12)LT) Bullet series		HDPE	8.0	(12/10) or (14/10)
288F	288F(12Fx(9+15)LT) Bullet series		HDPE	9.4	(16/12)
288F	288F(12FX,9+15) Micro		HDPE	10.2	(18/14)
144F	144F(24Fx6 LT) Micro	24	HDPE	7.0	(12/10) or (14/10)
192F	192F(24FX8 LT) Micro-Enhanced		HDPE	7.6	(12/10) or (14/10)
432F	432F(24F,6+12LT) Micro		Nylon	12.2	(22/18)
576F	576F(24F,9+15LT) Micro		Nylon	14.8	(32/26)
200 Micron Optical Fibre					
2-24F	24F(4FX6 LT) Next Gen Micro	4	HDPE	4.2	5.5/10
96F	96F(12Fx8 LT) Next Gen Micro	12	HDPE	5.8	(10/8) or (12/8)
288F	288F(12FX(9+15)LT) Next Gen Micro		HDPE	8.8	(16/12)
144F	144F(24FX6 LT) Next Gen Micro	24	HDPE	5.9	(10/8) or (12/8)
192F	192F(24FX8 LT) Next Gen Micro		HDPE	6.8	(12/10) or (14/10)
288F	288F(24FX12 LT) Next Gen Micro		HDPE	9.1	(16/12)
432F	432F(24FX18 LT) Next Gen Micro		HDPE	9.8	(18/14)
288F	288F(36FX8 LT) Next Gen Micro	36	HDPE	8.0	(12/10) or (14/10)

Mechanical and Environmental Characteristics*				
Test	Standard / Notes	Product Performance		
Bending Radius	IEC-60794-1-21-E11	Dynamic = 20D, Static = 15D		
Impact strength (N.m)	IEC-60794-1-21-E4	2		
Torsion	IEC-60794-1-21-E7	± 180°		
Drip Test	IEC-60794-1-21-E14	30 cm, 70°C, 24 hr		
Temperature Cycling	IEC-60794-1-22-F1	Installation: -20°C to +60°C	Operation: -30°C to +70°C	Storage: -40°C to +70°C
Water Penetration	IEC-60794-1-22-F5B	1m water head, 3m samples, 24 hrs no water leakage		

** After the test, the change in attenuation shall be ≤ 0.05 dB/km. No damage or crack on cable & no fibre break.

Cabled Optical Fibres Characteristics

The optical fibres are in accordance to the specifications ITU-T G.652D and ITU G.657A1 (250 & 200micron). Refer to specific data sheets for details.

Transmission Characteristics						
Fibre Type	Attenuation coefficient, dB/km (Average/Maximum)			PMD, ps/√km	PMD LDV, ps/√km	Cut-off Wavelength (λcc), nm 1310nm
	1310nm	1550nm	1625nm			
G652D fibre	≤ 0,35 / 0,36	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0 ,20	≤ 0,1	≤ 1260
G657A1 fibre (250 & 200 micron)	≤ 0,35 / 0,36	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0 ,20	≤ 0,1	≤ 1260

** This fibre is also available as a bend insensitive (Sterlite Tech's NOVA fibre) and fibre characteristics

Fibre Standard Colour Code

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

* For more than 12 fibres per tube, single or double stripes marking are done as per EIA/TIA 598.

Tube Standard Color Code

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

* For more than 12 tubes, single or double stripes marking are done as per EIA/TIA 598.

Packing and Lengths

Packing: Wooden drums with protection
Lengths (tolerance ±5%): 2km, 4km
Note - Customized drum lengths available on request.

Sheath printing details

STERLITE < Fibre Type ><Fibre Count><Product Type ><OFC Laser Symbol ><Telephone Symbol ><Month & Year of Production><Cable ID>< Meter Marking>

Composite Cable for Remote Powering & Data

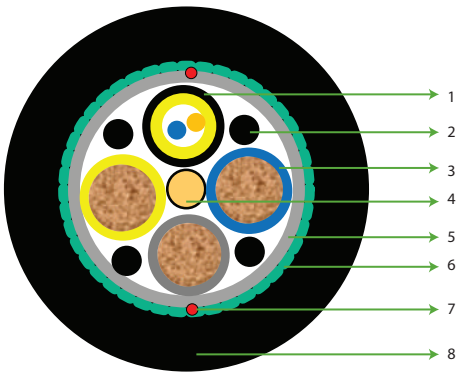
Product Details

Sterlite Tech™ Composite Cable for remote powering & Data (2F+3CU)" design is ideal for data communication and control installations that require fibre and power copper under one cable jacket.
This cable consists of three flexible stranded annealed copper conductors and two integrating communications links utilising fibre optic technologies. The core consists of stranded Duplex optical Fibre and copper conductors. Duplex has two colour coded tight buffered fibres reinforced with aramid yarns which provide protection to fibre. Corrugated steel tape armor surrounds the cable core with thermoplastic jacket placed over the armor layer, making the cable robust and installation friendly

Product Application

- With G.fast, communications services providers (CSPs) can offer more bandwidth on the line and faster services
- Remote application of Low-Voltage power
- High information transmission speed with optical fibre
- FTTA, Security Networks
- IP Enable appliances
- Wireless Access Points (backbone cable)
- Harsh environment installations

Typical Construction of Cable



1. FIBRE DUPLEX CABLE
2. FILLER
3. INSULATED COPPER CONDUCTOR
4. CENTRAL STRENGTH MEMBER
5. WATER BLOCKING TAPE
6. CORRUGATED STEEL TAPE
7. RIPCORD
8. OUTER SHEATH

Features & Benefits

- Conductors sized to provide up to 150/240V DC/AC
- Various combinations of copper conductors and optical Fibres in a single composite cable
- Resistant outer jacket available for harsh industrial or outdoor environments
- Gauge sizes of 7 or 12 AWG single stranded annealed copper wire available for power
- Available in combinations of all kinds of Single-mode or multi-mode optical fibres
- Copper and Fibre individually sub-cabled for ease of separation, handling and termination
- UV protected
- Tightly controlled physical parameters
- Combination of fibre types available on request

Performance Standards

Cable complies to the following main Standards IEC.60794 series, ANSI/ICEA S-87-640, Telcordia GR-20, ITU-T Recommendations, IS:694:1990

Specifications

Physical Characteristics		
Fibre Count	7AWG	12AWG
Nominal Cable Diameter (mm) ± 0.5mm	17.5	13.5
Nominal Cable Weight (kg/km) ± 10%	530	325
Run Length (Mtrs)	100	33

Mechanical and Environmental Characteristics				
Test	Standard / Notes	Product Performance		
Max. Tensile Strength (N)	IEC-60794-1-21-E1	1800		
Bending Radius	IEC-60794-1-21-E11	Dynamic = 15D, Static = 20D		
Crush Resistance (N/100mm)	IEC-60794-1-21-E3	1000		
Impact Load (N.m)	IEC-60794-1-21-E4	15		
Torsion	IEC-60794-1-21-E7	± 180°		
Drip Test	IEC-60794-1-21-E14	30 cm, 70°C, 24 hr		
Temperature Cycling	IEC-60794-1-22-F1	Installation: -10°C to +50°C	Operation: -30°C to +60°C	Storage: -20°C to +70°C
Water Penetration	IEC-60794-1-22-F5B	1m water head, 3m samples, 24 hrs no water leakage		

** After the test, the change in attenuation shall be ≤ 0.05 dB/km.No damage or crack on cable & no fibre break.

Cabled Optical Fibres Characteristics

The optical fibres are in accordance to the specifications ITU-T G.652D andITU-T G.657A1. Refer to specific data sheets for details.

Transmission Characteristics						
Fibre Type	Attenuation coefficient, dB/km (Average/Maximum)			PMD, ps/√km	PMD LDV ps/√km	Cut-off Wavelength (λcc), nm 1310nm
	1310nm	1550nm	1625nm			
G652D** fibre	≤ 0,35 / 0,36	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0 ,20	≤ 0,10	≤ 1260
G657A1 fibre	≤ 0,35 / 0,36	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0 ,20	≤ 0,15	≤ 1260

** This fibre is also available as a bend insensitive (Sterlite Tech's NOVA fibre)

Tube / Fibre Standard Colour Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Packing and Lengths

Packing: Wooden drums
Lengths (tolerance ±5%): 500, 1000, 2000 mtrs
Note - Customised drum lengths available on request.

Sheath printing details

STERLITE < Fibre Type ><Fibre Count><Product Type ><OFC Laser Symbol ><Telephone Symbol ><Month & Year of Production><Cable ID>< Meter Marking>

Composite Cable (Fibre+LAN)

Product Details

Sterlite Tech™ Composite Composite Cable (Fibre+LAN) (2F+Cat6 24 AWG)" design is ideal for data communication that requires Fibre and Copper LAN connection under one cable jacket.
This cable consists of 4 Pair unshielded twisted pair (UTP) 24 AWG Category 6 Cable and two integrating communications links utilising Fibre optic technologies. The core consists of 2 Fibre optical unit and 4 twisted pairs. All elements are separated by star filler with a central embedded strength member. Fibre Unit has two colour coded fibres jelly inside the tube which provides protection to fibre. Cable is jacketed with PVC or LSZH material to make the cable suitable for indoor applications

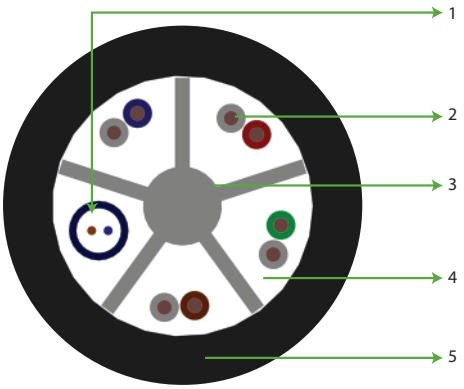
Product Application

- With G.fast, communications services providers (CSPs can offer more bandwidth on the line and faster services
- Remote application of Low-Voltage power
- High information transmission speed with optical fibre
- FTTA, Security Networks
- IP Enable appliances
- Wireless Access Points (backbone cable)
- Harsh environment installations

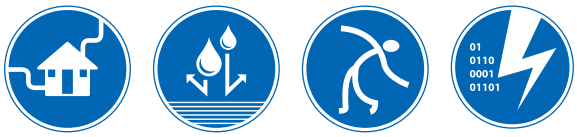
Features & Benefits

- Category Cable may be 23 AWG Cat6 or 24 AWG Cat5e cable
- Various combinations of copper conductors and optical Fibres in a single composite cable
- Resistant outer jacket available for harsh industrial or outdoor environments
- Gauge sizes of 24 and 23 AWG
- Available in combinations of all kinds of Single Mode and Multimode Optical Fibres
- Copper and Fibre in a same core makes the cable compact for ease of handling and termination
- Tightly controlled physical parameters

Typical Construction of Cable



1. FIBRE UNIT
2. TWISTED COPPER PAIR
3. CENTRAL STRENGTH MEMBER
4. FILLER SEPERATOR
5. OUTER SHEATH



FTTH | Water Blocked | High Flexibility | Composite

Performance Standards

Cable complies to the following Standards IEC.60794 series, ANSI/ICEA S-87-640, Telcordia GR-20, ITU-T Recommendations, ANSI/TIA 568 C.2 Category 6 & ISO/IEC 11801 Class E Cabling.

Specifications

Physical Characteristics				
Fibre Count	2F + Cat6			
Nominal Diameter (mm) ± 0.3mm	6.5			
Nominal Weight (kg/km) ± 10%	45			
Run Length (Mtrs)	90			
Mechanical and Environmental Characteristics*				
Test	Standard / Notes	Product Performance		
Max. Tensile Strength (N)	IEC-60794-1-21-E1	250		
Bending Radius	IEC-60794-1-21-E11	Dynamic = 15D, Static = 20D		
Crush Resistance (N/100mm)	IEC-60794-1-21-E3	1000		
Impact Load (N.m)	IEC-60794-1-21-E4	5Nm		
Temperature Cycling	IEC-60794-1-22-F1	Installation: -10°C to +60°C	Operation: -20°C to +70°C	Storage: -30°C to +70°C

** After the test, the change in attenuation shall be ≤ 0.05 dB/km. No damage or crack on cable & no fibre break.

Cabled Optical Fibres Characteristics

The optical fibres are in accordance to the specifications ITU-T G.652D andITU-T G.657A1. Refer to specific data sheets for details.

Transmission Characteristics						
Fibre Type	Attenuation coefficient, dB/km (Average/Maximum)			PMD, ps/√km	PMD LDV ps/√km	Cut-off Wavelength (λcc), nm 1310nm
	1310nm	1550nm	1625nm			
G652D** fibre	≤ 0,35 / 0,36	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0 ,20	≤ 0.10	≤ 1260
G657A1 fibre	≤ 0,35 / 0,36	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0 ,20	≤ 0.15	≤ 1260

** This fibre is also available as a bend insensitive (Sterlite Tech's NOVA fibre)

Transmission Characteristics – 90 Meter Cat 6 Cable								
Frequency (MHz)	Insertion Loss Max.(dB)	NEXT (dB) Min.	ACR-N (dB) Min.	RL (dB) Min.	PS NEXT (dB) Min.	PS ACR-N (dB) Min.	ACR-F (dB) Min.	PS ACR-F (dB) Min.
1	1.9	65	62	19.1	62	59	64.2	61.2
4	3.5	64.1	60.6	21	61.8	58.3	52.1	49.1
8	5	59.4	54.4	21	57	52.1	46.1	43.1
10	5.5	57.8	52.3	21	55.5	49.9	44.2	41.2
16	7	54.6	47.6	20	52.2	45.2	40.1	37.1
20	7.9	53.1	45.2	19.5	50.7	42.8	38.2	35.2
25	8.9	51.5	42.7	19	49.1	40.2	36.2	33.2
31.25	10	50	40	18.5	47.5	37.6	34.3	31.3
62.5	14.4	45.1	30.8	16	42.7	28.3	28.3	25.3
100	18.6	41.8	23.3	14	39.3	20.7	24.2	21.2
200	27.4	36.9	9.6	11	34.3	7	18.2	15.2
250	31.1	35.3	4.2	10	32.7	1.6	16.2	13.2

Fibre Standard Colour Code

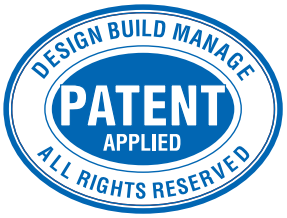
1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Packing and Lengths

Packing: Wooden drums with protection
Lengths (tolerance ±5%): 4km
Note - Customised drum lengths available on request.

Work Safe Aerial

a10048:AM048:X---SE



Patent numbers
IN 201721030305

Product Details

Sterlite Tech™ Work Safe Aerial Fibre Optic Cable is a small diameter, ultra-lightweight aerial cable. It benefits form unique safety features of predictable breaking load which is essential in the event of vehicle strike, to protect equipment and minimize the risk of loss of tangible assets that could potentially harm personnel, property or equipment and will be a fully safe aerial installation solution in new national telecom infrastructure building projects.
The micro-module units consist of groups of fibres protected by an easily strippable and flexible thermoplastic material and filled with thixotropic compound. These microstructures are surrounded with water swelling elements to protect against moisture ingress, and are constrained in a polyethylene sheath, which is provided with embedded strength members to protect from against buckling.

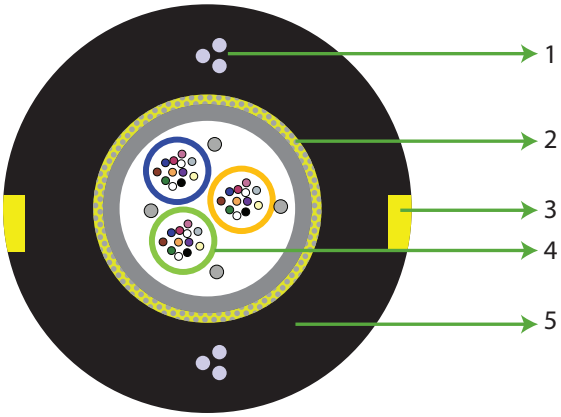
Product Application

- This Cable is suitable for FTTH Roll out and a range of light weight drop type design / construction cables for installation in the Fibre Network in Overhead and Underground environments
- This fibre drop cable meets the breaking load requirement of 1350-1800N in the interests of safety for overhead applications and is compatible for aerial installations of upto 55 meters

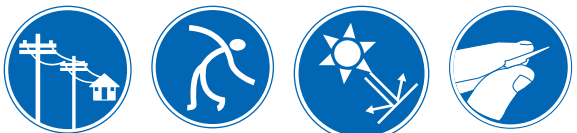
Features & Benefits

- Available in Fibre types SM, G657.A1. Other fibre options in either Single-mode or multi-mode optical fibres are available upon request.
- Reduced diameter micro- modules manufactured from soft and flexible elastomeric material.
- Diametrically opposed embedded strength members provides excellent crush protection performance.
- Fibre micro-modules are kink resistant and easily removed without the need for tools.
- Fast and easy midspan access.
- Ultra-compactness, easier storage and faster installation.
- UV protected.
- Tightly controlled physical parameters.
- Combination of fibre types available on request

Typical Construction of Cable



1. EMBEDDED STRENGTH MEMBER
2. ARAMID YARNS
3. STRIPE MARKING ON SHEATH
4. SEMI DRY MICROMODULES WITH FIBRES
5. OUTER SHEATH



Performance Standards

Cable Complies to the following main Standards IEC.60794 series, EN 60794, ANSI/ICEA S-87-640, Telcordia GR-20, ITU-T Recommendationsand British telecom

Specifications

Physical Characteristics				
Fibre Count		4-48		
Nominal Cable Diameter (mm) ± 0.5mm		7.0		
Nominal Cable Weight (kg/km) ± 10%		35		
Mechanical and Environmental Characteristics*				
Test	Standard / Notes	Product Performance		
Breaking Load (N)	-	1350 - 1800		
Span length	-	55mtrs at a sag of 1.8% (exceptional 68mtrs)		
Bending Radius	IEC-60794-1-21-E11	Dynamic = 15D, Static = 10D		
Crush Resistance (N/100mm)	IEC-60794-1-21-E3	2000		
Impact strength (N.m)	IEC-60794-1-21-E4	10		
Torsion	IEC-60794-1-21-E7	± 360°		
Temperature Cycling	IEC-60794-1-22-F1	Installation: -10°C to +60°C	Operation: -20°C to +70°C	Storage: -20°C to +70°C

** After the test, the change in attenuation shall be ≤ 0.05 dB/km. No damage or crack on cable & no fibre break.

Cabled Optical Fibres Characteristics

The optical fibres are in accordance to the specifications ITU-T G.657A1. Refer to specific data sheets for details.

Transmission Characteristics						
Fibre Type	Attenuation coefficient, dB/km (Average/Maximum)			PMD, ps/√km	PMD LDV, ps/√km	Cut-off Wavelength (λcc), nm 1310nm
	1310nm	1550nm	1625nm			
G.657A1 fibre	≤ 0,35 / 0,36	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0 ,20	≤ 0,1	≤ 1260

Fibre Standard Colour Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Module Standard Colour Code (As per EIA/TIA 598)

1	2	3	4
Blue	Orange	Green	Brown

Packing and Lengths

Packing: Wooden drums
Lengths (tolerance ±5%): 2km
Note - Customised drum lengths available on request.

Sheath printing details

STERLITE < Fibre Type ><Fibre Count><Product Type ><OFC Laser Symbol ><Telephone Symbol ><Month & Year of Production><Cable ID>< Meter Marking>

Outdoor Aerial Fibre Optic Cable

AERIAL-LITE® Multitube Single Jacket ADSS

2d0144:AL012:X---S-

Product Details

Sterlite Tech™ AERIAL-LITE® Multi-tube Single Jacket ADSS Cables are small in diameter and light in weight which enable them to be installed aerially in short to medium span applications. This cable is a stranded loose tube cable with optical fibre placed inside robust buffer tubes stranded around a fibre reinforced plastic (FRP) central strength member. In addition to optical fibres, the buffer tubes contain water blocking gel and the cable core is surrounded with water-swellable tape to prevent water ingress in the interstices of cable core. High strength aramid yarns are evenly distributed over the core to provide the required tensile strength for aerial self-supporting applications. An overall thermoplastic jacket provides the cable with both mechanical and environmental protection.

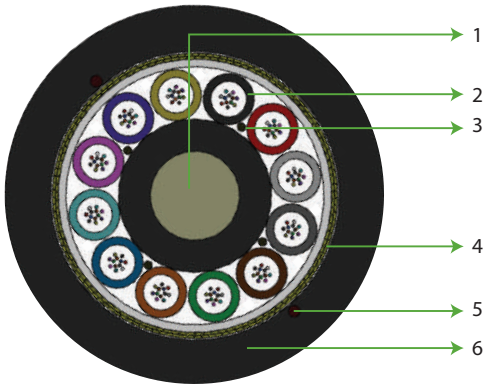
Product Application

This ADSS Cable is designed for outside plant (OSP) aerial self-supported applications in distribution as well as local and campus network loop architectures. These cables are used in aerial applications for short to medium span lengths including deployment along existing aerial Right-of-Way and electric transmission towers.This cable is suitable for aerial-to-duct /underground transitions.

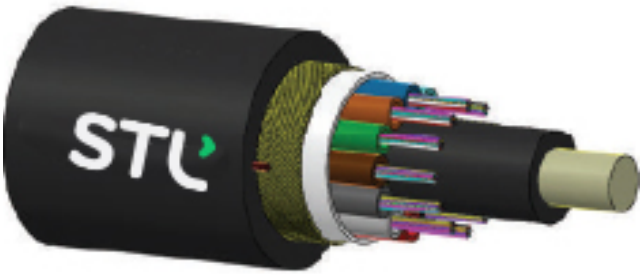
Features & Benefits

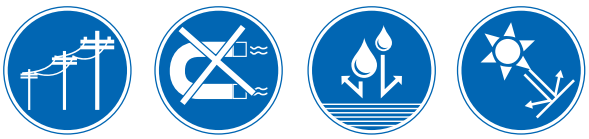
- Available up to 144 fibre count in either single-mode or multi-mode optical fibres
- Anti-tracking PE can be used for installation in the proximity of high tension power lines (optional)
- This cable can be designed to suit specific requirements of span length, wind speed and other loading conditions
- All dielectric design cable is completely immune to electromagnetic fields
- Multitube design with ripcords for easy and quick mid-span access
- Dry water-blocking technology for gel free core helps in quicker end preparation
- Easily removable rugged thermoplastic jacket
- Flexible, light weight, easy to handle & install
- Tensile and crush resistant
- UV protected
- Tightly controlled physical parameters
- Combination of fibre types available on request

Typical Construction of Cable



1. CENTRAL STRENGTH MEMBER
2. LOOSE TUBE WITH FIBRES & GEL
3. WS YARNS
4. CORE WRAPPING WITH ARAMID YARNS
5. RIPCORD(S)
6. OUTER SHEATH





Performance Standards

Cable complies to the following main Standards IEC.60794 series, ANSI/ICEA S-87-640, Telcordia GR-20, ITU-T Recommendations, IEEE 1222, RoHS

Specifications

Physical Characteristics			
Fibre Count	12-72	96	144
Fibres per tube	12	12	12
No. of tubes	1~6	8	12
Nominal Cable Diameter (mm) ± 0.5mm	11.2	13.2	16.5
Nominal Cable Weight (kg/km) ± 10%	95	145	200

Mechanical and Environmental Characteristics*				
Test	Standard / Notes	Product Performance		
NESC Conditions/Span		NESC Light/100 m NESC Medium/ 100 m NESC Heavy/ 60 m	NESC Light/100 m NESC Medium/ 80 m NESC Heavy/ 50 m	NESC Light/100 m NESC Medium/ 80 m NESC Heavy/ 50 m
Maximum Operating Tension	IEC-60794-1-21-E1	2700 N	3100 N	3800 N
Maximum Allowable Tension	IEC-60794-1-21-E1	4200 N	4900 N	6000 N
Installation Sag %		1%		
Bending Radius	IEC-60794-1-21-E11	Dynamic = 20D, Static = 15D		
Crush Resistance (N/100mm)	IEC-60794-1-21-E3	2200	2200	2200
Impact strength (N.m)	IEC-60794-1-21-E4	25		
Torsion	IEC-60794-1-21-E7	± 180°		
Drip Test	IEC-60794-1-21-E14	30 cm, 70°C, 24 hr		
Temperature Cycling	IEC-60794-1-22-F1	Installation: -20°C to +60°C	Operation: -30°C to +70°C	Storage: -40°C to +70°C
Water Penetration	IEC-60794-1-22-F5B	1m water head, 3m samples, 24 hrs no water leakage		

** After the test, the change in attenuation shall be ≤ 0.05 dB/km. No damage or crack on cable & no fibre break.

Cabled Optical Fibres Characteristics

The optical fibres are in accordance to the specifications ITU-T G.652D. Refer to specific data sheets for details.

Transmission Characteristics						
Fibre Type	Attenuation coefficient, dB/km (Average/Maximum)			PMD, ps/√km	PMD LDV, ps/√km	Cut-off Wavelength (λcc), nm 1310nm
	1310nm	1550nm	1625nm			
G652D**	≤ 0,35 / 0,36	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0 ,20	≤ 0,1	≤ 1260

** This fibre is also available as a bend insensitive (Sterlite Tech's NOVA fibre)

Fibre Standard Colour Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Tube Standard Color Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Packing and Lengths

Packing: Wooden drums
Lengths (tolerance ±5%): 2km, 4km
Note - Customised drum lengths available on request.

Sheath printing details

STERLITE < Fibre Type ><Fibre Count><Product Type ><OFC Laser Symbol ><Telephone Symbol ><Month & Year of Production><Cable ID>< Meter Marking>

AERIAL-LITE® Multitube Double Jacket ADSS

2d0144:AL012:X---D-

Product Details

Sterlite Tech™ AERIAL-LITE® Multi-tube Double Jacket ADSS are designed having high tensile strength which makes them suitable for medium to long span applications. This cable is a stranded loose tube cable with optical fibres placed inside robust buffer tubes stranded around a fibre reinforced plastic (FRP) central strength member. In addition to optical fibres, the buffer tubes contain water blocking gel, and the cable core is surrounded with water-swellable tape to prevent water ingress in the interstices of cable core. High Strength Aramid Yarns are evenly distributed over the inner sheath to provide the required tensile strength for aerial self-supporting applications. An overall Thermoplastic jacket provides the cable with both mechanical and environmental protection.

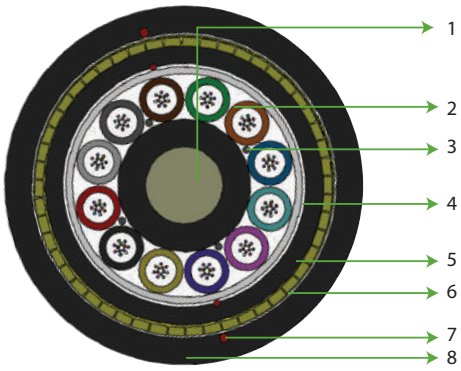
Product Application

This ADSS Cable is designed for outside plant (OSP) aerial self-supported applications in distribution as well as local and campus network loop architectures. These cables are used in aerial applications for medium to long span-lengths including deployment along existing aerial Right of Way and electric transmission towers.This cable is suitable for aerial-to-duct /underground transitions.

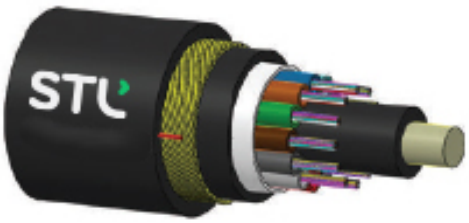
Features & Benefits

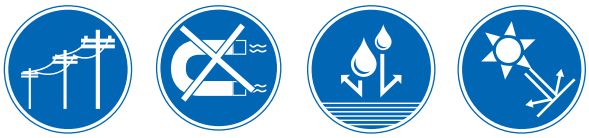
- Available up to 144 fibre count in either single-mode or multi-mode optical fibres
- Anti-tracking PE can be used for installation in the proximity of high tension power lines (Optional)
- This cable can be designed to suit specific requirements of span length, wind speed and other loading conditions
- All dielectric design cable is completely immune to electromagnetic fields
- Multitube design with ripcords for easy and quick mid-span access
- Dry water-blocking technology for gel free core helps in quicker end preparation
- Easily removable rugged thermoplastic jacket
- Flexible, light weight, easy to handle & install
- Tensile and crush resistant
- UV protected
- Tightly controlled physical parameters
- Combination of fibre types available on request

Typical Construction of Cable



1. CENTRAL STRENGTH MEMBER
2. LOOSE TUBE WITH FIBRES & GEL
3. WS YARNS
4. CORE WRAPPING
5. INNER SHEATH
6. ARAMID YARNS
7. RIPCORD(S)
8. OUTER SHEATH





Performance Standards

Cable complies to the following main Standards IEC.60794 series, ANSI/ICEA S-87-640, Telcordia GR-20, ITU-T Recommendations, IEEE 1222, RoHS

Specifications

Physical Characteristics			
Fibre Count	12-72	96	144
Fibres per tube	12	12	12
No. of tube	1~6	8	12
Nominal Cable Diameter (mm) ± 0.5mm	14.5	15.3	19.0
Nominal Cable Weight (kg/km) ± 10%	145	195	290

Mechanical and Environmental Characteristics*				
Test	Standard / Notes	Product Performance		
NESC Conditions/Span		NESC Light/250 m NESC Medium/ 220 m NESC Heavy/ 120 m	NESC Light/250 m NESC Medium/ 220 m NESC Heavy/ 120 m	NESC Light/250 m NESC Medium/ 220 m NESC Heavy/ 120 m
Maximum Operating Tension	IEC-60794-1-21-E1	6900 N	7700 N	9200 N
Maximum Allowable Tension	IEC-60794-1-21-E1	11000 N	12000 N	14700 N
Installation Sag %		1%		
Bending Radius	IEC-60794-1-21-E11	Dynamic = 20D, Static = 15D		
Crush Resistance (N/100mm)	IEC-60794-1-21-E3	3000	3000	3000
Impact strength (N.m)	IEC-60794-1-21-E4	25		
Torsion	IEC-60794-1-21-E7	± 180°		
Drip Test	IEC-60794-1-21-E14	30 cm, 70°C, 24 hr		
Temperature Cycling	IEC-60794-1-22-F1	Installation: -20°C to +60°C	Operation: -30°C to +70°C	Storage: -40°C to +70°C
Water Penetration	IEC-60794-1-22-F5B	1m water head, 3m samples, 24 hrs no water leakage		

** After the test, the change in attenuation shall be ≤ 0.05 dB/km. No damage or crack on cable & no fibre break.

Cabled Optical Fibres Characteristics

The optical fibres are in accordance to the specifications ITU-T G.652D andITU-T G.655. Refer to specific data sheets for details.

Transmission Characteristics						
Fibre Type	Attenuation coefficient, dB/km (Average/Maximum)			PMD, ps/√km	PMD LDV, ps/√km	Cut-off Wavelength (λcc), nm 1310nm
	1310nm	1550nm	1625nm			
G652D**	≤ 0,35 / 0,36	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0 ,20	≤ 0,1	≤ 1260

** This fibre is also available as a bend insensitive (Sterlite Tech's NOVA fibre)

Fibre Standard Colour Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Tube Standard Color Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Packing and Lengths

Packing: Wooden drums
Lengths (tolerance ±5%): 2km, 4km
Note - Customised drum lengths available on request.

Sheath printing details

STERLITE < Fibre Type ><Fibre Count><Product Type ><OFC Laser Symbol ><Telephone Symbol ><Month & Year of Production><Cable ID>< Meter Marking>

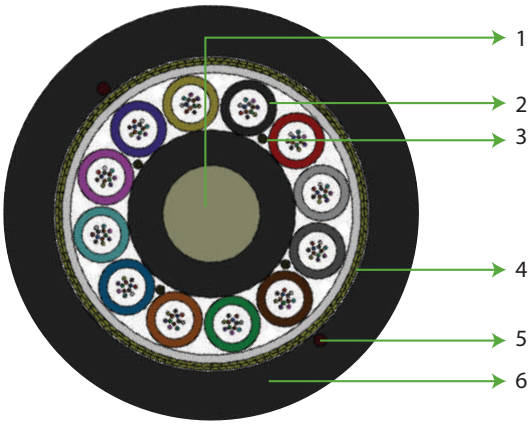
AERIAL-LITE® Gel Free Multitube Single Jacket ADSS

2d0144:AL012:D---S-

Product Details

Sterlite Tech™ AERIAL-LITE® Gel Free Multi-tube Single Jacket ADSS Cables are smaller in diameter and lighter in weight which enables them to be installed aerially in moderatefield conditions. This cable is a stranded loose tube cable with optical fibres placed inside robust buffer tubes stranded around a fibre reinforced plastic (FRP) central strength member. In addition to optical fibres, the buffer tubes contain water-swellable yarns, and the cable core is surrounded with water-swellable tape to prevent water ingress in the interstices of cable core. High strength aramid yarns are distributed over the core to provide the required tensile strength for aerial self-supporting applications. An overall thermoplastic jacket affords the cable both mechanical and environmental protection. Anti-track PE may be added for installation along with high tension lines.

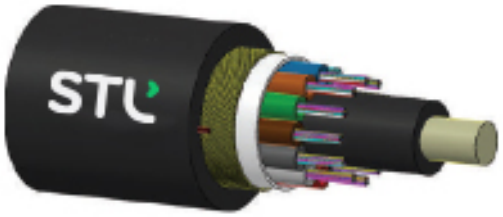
Typical Construction of Cable



1. CENTRAL STRENGTH MEMBER
2. LOOSE TUBE WITH FIBRES & WATER SWELLABLE YARNS
3. WS YARNS
4. CORE WRAPPING WITH ARAMID YARNS
5. RIPCORD(S)
6. OUTER SHEATH

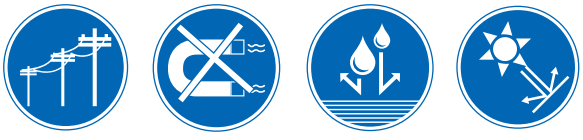
Product Application

This ADSS Cable is designed for Outside Plant aerial and duct applications in local and campus network loop architectures, FTTH deployments and for self-supporting aerial use, direct use in ducts and aerial-to-duct / underground transitions. These cables are used in aerial applications for short span lengths including deployment along existing aerial rights-of-way and electric transmission towers.



Features & Benefits

- Available up to 144 fibre count in either single-mode or multi-mode optical fibres
- Anti-track PE may be added for installation along with high tension lines (Optional)
- Depending on customer requirements, the cable can be designed to take care of span length, wind speed, ice load and other extra loading on cable
- All dielectric design allows the user to use cable with out any grounding due to its immunity to electromagnetic fields
- Can also be used for duct installation depending on right of way
- Multitube design with ripcords for easy and quick mid-span access
- Dry water blocking materials inside and outside the tubes enable full water protection
- Water blocking yarns inside tubes enable rapid, cleanfibre splicing and storage inside the joint enclosures
- Easily removable rugged thermoplastic jacket
- Flexible, light weight, easy to handle & install
- Tensile and crush resistant
- UV protected.
- Tightly controlled physical parameters.
- Combination of fibre types available on request.



Performance Standards

Cable complies to the following main Standards IEC.60794 series, ANSI/ICEA S-87-640, Telcordia GR-20, ITU-T Recommendations, 1222-2011 IEE, RoHS

Specifications

Physical Characteristics			
Fibre Count	12-72	96	144
Fibres per tube	12	12	12
No. of tube	1~6	8	12
Nominal Cable Diameter (mm) ± 0.5mm	12.4	12.8	17.6
Nominal Cable Weight (kg/km) ± 10%	100	125	210

Mechanical and Environmental Characteristics*				
Test	Standard / Notes	Product Performance		
NESC Conditions/Span		NESC Light/100 m NESC Medium/ 100 m NESC Heavy/ 60 m	NESC Light/100 m NESC Medium/ 80 m NESC Heavy/ 50 m	NESC Light/100 m NESC Medium/ 80 m NESC Heavy/ 50 m
Maximum Operating Tension	IEC-60794-1-21-E1	2700 N	3100 N	3800 N
Maximum Allowable Tension	IEC-60794-1-21-E1	4200 N	4900 N	6000 N
Bending Radius	IEC-60794-1-21-E11	Dynamic = 20D, Static = 15D		
Crush Resistance (N/100mm)	IEC-60794-1-21-E3	2000	2000	2000
Impact strength (N.m)	IEC-60794-1-21-E4	25		
Torsion	IEC-60794-1-21-E7	± 180°		
Temperature Cycling	IEC-60794-1-22-F1	Installation: -20°C to +60°C	Operation: -30°C to +70°C	Storage: -40°C to +70°C
Water Penetration	IEC-60794-1-22-F5B	1m water head, 3m samples, 24 hrs no water leakage		

** After the test, the change in attenuation shall be ≤ 0.05 dB/km.No damage or crack on cable & no fibre break.

Cabled Optical Fibres Characteristics

The optical fibres are in accordance to the specifications ITU-T G.652D. Refer to specific data sheets for details.

Transmission Characteristics						
Fibre Type	Attenuation coefficient, dB/km (Average/Maximum)			PMD, ps/√km	PMD LDV, ps/√km	Cut-off Wavelength (λcc), nm 1310nm
	1310nm	1550nm	1625nm			
G652D**	≤ 0,35 / 0,36	≤ 0,25 / ≤ 0,26	-	≤ 0 ,20	≤ 0,10	≤ 1260

** This fibre is also available as a bend insensitive (Sterlite Tech's NOVA fibre)

Fibre Standard Colour Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Tube Standard Color Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Packing and Lengths

Packing: Wooden drums
Lengths (tolerance ±5%): 2km, 4km
Note - Customised drum lengths available on request.

Sheath printing details

STERLITE < Fibre Type ><Fibre Count><Product Type ><OFC Laser Symbol ><Telephone Symbol ><Month & Year of Production><Cable ID>< Meter Marking>

AERIAL-LITE® Multitube Single Jacket Figure-8

2d0144:8L012:X---S-

Product Details

Sterlite Tech™ AERIAL-LITE® Single Jacket Figure-8 Cables have integrated high strength stranded galvanised steel messenger wire as a support strand which provides high tensile strength to the cable making it suitable for aerial self-supported installations. This cable is a stranded loose tube cable with optical fibre placed inside robust buffer tubes stranded around a fibre reinforced plastic (FRP) central strength member. In addition to optical fibres, the buffer tubes contain water blocking gel, and the cable core is surrounded with water-swellable tape to prevent water ingress in the interstices of cable core. Thermoplastic jacket is applied over the cable core and integrated stranded steel messenger to form a "Figure-8" configuration.

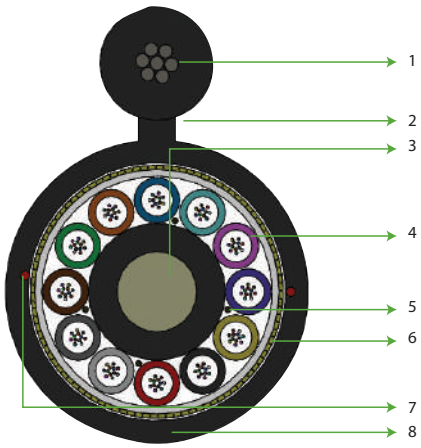
Product Application

This Cable is designed for outside plant (OSP) aerial self-supported applications in distribution as well as local and campus network loop architectures. These cables are used in aerial applications for short to medium span lengths including deployment along existing aerial Rights-of-way. Once detached from the steel messenger wire, cable is suitable for aerial-to-duct /underground transitions. This design provides easy and economical one-step installation and stable performance over a wide temperature range and is compatible with any local distribution telecommunication network.

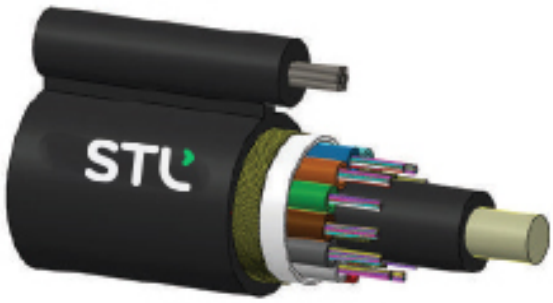
Features & Benefits

- Available up to 144 fibre count in either single-mode or multi-mode optical fibres
- Figure-8 cable design provides easy and economical one step installation
- Multitube design with ripcords for easy and quick mid span access
- Dry water-blocking technology for gel free core helps in quicker end preparation
- Easily removable rugged thermoplastic jacket
- Flexible, light weight, easy to handle & install
- Tensile and crush resistant
- UV protected
- Tightly controlled physical parameters
- Combination of fibre types available on request

Typical Construction of Cable



1. MESSENGER WIRE
2. NECK
3. CENTRAL STRENGTH MEMBER
4. LOOSE TUBE WITH FIBRES & GEL
5. WS YARNS
6. CORE WRAPPING
7. RIPCORD(S)
8. OUTER SHEATH



Performance Standards

Cable complies to the following main Standards IEC.60794 series, ANSI/ICEA S-87-640, Telcordia GR-20, ITU-T Recommendations, IEEE 1222,

Specifications

Physical Characteristics			
Fibre Count	12-72	96	144
Fibres per tube	12	12	12
No. of tubes	1~6	8	12
Nominal Cable Diameter (mm) ± 0.5mm	10.8 x 19.0	12.5 x 20.5	16.0 x 24.0
Nominal Cable Weight (kg/km) ± 10%	170	220	275

Mechanical and Environmental Characteristics*				
Test	Standard / Notes	Product Performance		
Max. Allowable Tensile Strength (N)	IEC-60794-1-21-E1	10000 N	10000 N	10000 N
Bending Radius	IEC-60794-1-21-E11	Dynamic = 20D, Static = 15D		
Crush Resistance (N/100mm)	IEC-60794-1-21-E3	3000	3000	3000
Impact strength (N.m)	IEC-60794-1-21-E4	25		
Torsion	IEC-60794-1-21-E7	± 180°		
Drip Test	IEC-60794-1-21-E14	30 cm, 70°C, 24 hr		
Temperature Cycling	IEC-60794-1-22-F1	Installation: -20°C to +60°C	Operation: -30°C to +70°C	Storage: -40°C to +70°C
Water Penetration	IEC-60794-1-22-F5B	1m water head, 3m samples, 24 hrs no water leakage		

** After the test, the change in attenuation shall be ≤ 0.05 dB/km.No damage or crack on cable & no fibre break.

Cabled Optical Fibres Characteristics

The optical fibres are in accordance to the specifications ITU-T G.652D. Refer to specific data sheets for details.

Transmission Characteristics						
Fibre Type	Attenuation coefficient, dB/km (Average/Maximum)			PMD, ps/√km	PMD LDV ps/√km	Cut-off Wavelength (λcc), nm 1310nm
	1310nm	1550nm	1625nm			
G652D**	≤ 0,35 / 0,36	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0 ,20	≤ 0,10	≤ 1260

** This fibre is also available as a bend insensitive (Sterlite Tech's NOVA fibre)

Fibre Standard Colour Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Tube Standard Color Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Packing and Lengths

Packing: Wooden drums
Lengths (tolerance ±5%): 2km, 4km
Note - Customised drum lengths available on request.

Sheath printing details

STERLITE < Fibre Type ><Fibre Count><Product Type ><OFC Laser Symbol ><Telephone Symbol ><Month & Year of Production><Cable ID>< Meter Marking>

Outdoor Underground Fibre Optic Cable

DUCT-LITE® Multitube Single Jacket

2d0864:DL024:X---S-

Product Details

Sterlite Tech™ DUCT-LITE® Multitube Single Jacket Fibre Optic Cables are suitable for duct applications. This cable is a stranded loose tube cable with optical fibres placed inside robust buffer tubes stranded around a fibre reinforced plastic (FRP) central strength member. In addition to optical fibres, the buffer tubes contain water blocking gel and the cable core is surrounded with water-swellable tape to prevent water ingress in the interstices of cable core. The cable core is surrounded with thermoplastic sheath making the cable robust and installation friendly.

Note – When required an additional polyamide jacket bonded to the thermoplastic sheath can be provided.

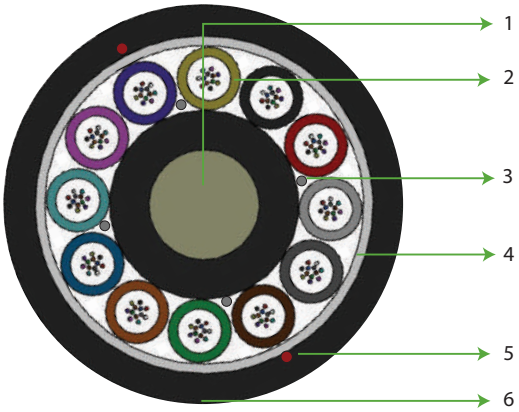
Product Application

These cables are typically used for outside plant (OSP) applications including duct and lashed aerial in harsh environments. They can be installed in ducts with either pulling, trenching or blowing techniques and in aerial applications with traditional lashing methods.

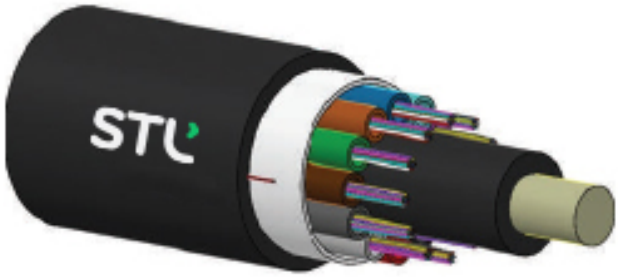
Features & Benefits

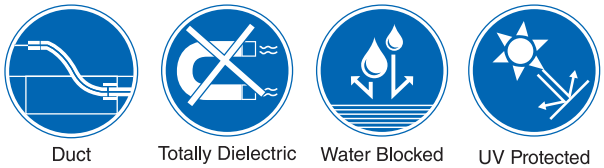
- Available up to 864 fibre count in either single-mode or multi-mode optical fibres
- Multitube design with ripcords for easy and quick mid span access
- Minimum fibre strain due to reversal oscillating (SZ) stranding
- Water-blocking technology for gel free core helps in quicker end preparation
- Easily removable rugged thermoplastic jacket
- Flexible, light weight, easy to handle & install
- Tensile and crush resistant
- UV protected
- Tightly controlled physical parameters
- Combination of fibre types available on request

Typical Construction of Cable



1. CENTRAL STRENGTH MEMBER
2. LOOSE TUBE WITH FIBRES & GEL
3. WS YARNS
4. CORE WRAPPING
5. RIPCORD(S)
6. OUTER SHEATH





Performance Standards

Cable complies to the following main Standards IEC.60794 series, ANSI/ICEA S-87-640, Telcordia GR-20, ITU-T Recommendations, RoHS CPR rating for LSZH sheath

Specifications

Physical Characteristics							
Fibre Count	12-72	96	144	288	432	576	864
Fibres per tube	12	12	12	12	24	24	24
No. of tube	1~6	8	12	24	18	24	36
Nominal Cable Diameter (mm) ± 0.5mm	9.6	11.0	13.6	16.2	19.2	22.2	26.0
Nominal Cable Weight (kg/km) ± 10%	70	100	145	200	280	400	485

Mechanical and Environmental Characteristics*								
Test	Standard / Notes	Product Performance						
Max. Tensile Strength (N)	IEC-60794-1-21-E1	2000	2700	2700	3000	3000	3000	3000
Bending Radius	IEC-60794-1-21-E11	Dynamic = 20D, Static = 15D						
Crush Resistance (N/100mm)	IEC-60794-1-21-E3	2000	2700	2700	3000	3000	3000	3000
Impact strength (N.m)	IEC-60794-1-21-E4	25						
Torsion	IEC-60794-1-21-E7	± 180°						
Drip Test	IEC-60794-1-21-E14	30 cm, 70°C, 24 hr						
Temperature Cycling	IEC-60794-1-22-F1	Installation: -20°C to +60°C			Operation: -30°C to +70°C		Storage: -40°C to +70°C	
Water Penetration	IEC-60794-1-22-F5B	1m water head, 3m samples, 24 hrs no water leakage						

* After the test, the change in attenuation shall be ≤ 0.05 dB/km. No damage or crack on cable & no fibre break.

Cabled Optical Fibres Characteristics

The optical fibres are in accordance to the specifications ITU-T G.652D and ITU-T G.655. Refer to specific data sheets for details.

Transmission Characteristics						
Fibre Type	Attenuation coefficient, dB/km (Average/Maximum)			PMD, ps/√km	PMD LDV ps/√km	Cut-off Wavelength (λcc), nm 1310nm
	1310nm	1550nm	1625nm			
G652D**	≤ 0,35 / 0,36	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0 ,20	≤ 0,1	≤ 1260
G655	-	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0 ,20	≤ 0,1	≤ 1450

** This fibre is also available as a bend insensitive (Sterlite Tech's NOVA fibre)

Fibre Standard Colour Code

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

13	14	15	16	17	18	19	20	21	22	23	24
Blue	Orange	Green	Brown	Grey	White	Red	Natural	Yellow	Violet	Pink	Aqua

Tube Standard Color Code

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

* For more than 12 tubes, single or double stripes marking are done as per EIA/TIA 598.

Packing and Lengths

Packing: Wooden drums
Lengths (tolerance ±5%): 2km, 4km
Note - Customised drum lengths available on request.

Sheath printing details

STERLITE < Fibre Type ><Fibre Count><Product Type ><OFC Laser Symbol ><Telephone Symbol ><Month & Year of Production><Cable ID>< Meter Marking>

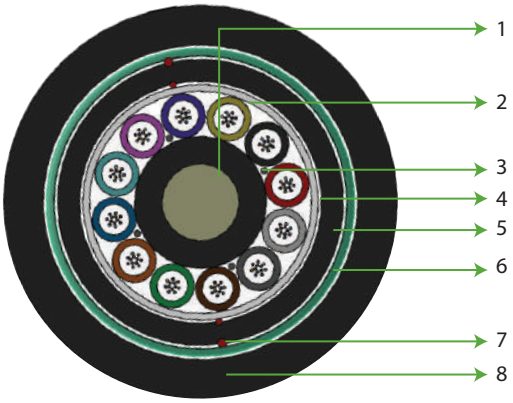
ARMOR-LITE® Multitube Double Jacket Dielectric Armored

2d0864:BL024:X-GRD-

Product Details

Sterlite Tech™ ARMOR–LITE® Multitube Double Jacket Dielectric Armored Fibre Optic Cables are suitable for direct burial as well as for duct applications. This cable is a stranded loose tube cable with optical fibres placed inside robust buffer tubes stranded around a fibre reinforced plastic (FRP) central strength member. In addition to optical fibres, the buffer tubes contain water blocking gel and the cable core is surrounded with water-swellable tape to prevent water ingress in the interstices of cable core. Glass roving yarns are distributed over the inner sheath and an overall thermoplastic jacket provides the cable with both mechanical and environmental protection.

Typical Construction of Cable



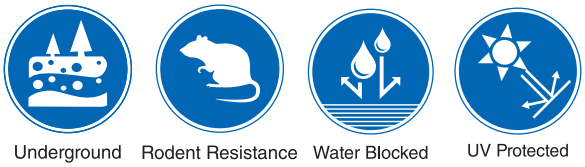
1. CENTRAL STRENGTH MEMBER
2. LOOSE TUBE WITH FIBRES & GEL
3. WS YARNS
4. CORE WRAPPING
5. INNER SHEATH
6. PHERIPHERAL STRENGTH MEMBER
7. RIPCORD(S)
8. OUTER SHEATH

Product Application

These cables are typically used for outside plant (OSP) applications, includingduct, direct buried and lashed aerial in harsh environments. They can be directly buried using plowing or trenching techniques. These cables can also be installed in ducts with either pulling or blowing techniques and installed with traditional aerial lashing methods.

Features & Benefits

- Available up to 864 fibre count in either single-mode or multi-mode optical fibres
- Double Jacket and dielectric armoring provides additional protection against crush and impact and also protects against rodent attacks
- Multitube design with ripcords for easy and quick mid span access
- Dry water-blocking technology for gel free core helps in quicker end preparation
- Easily removable rugged thermoplastic jacket
- Flexible, light weight, easy to handle &install
- Tensile and crush resistant
- UV protected
- Tightly controlled physical parameters
- Combination of fibre types available on request



Performance Standards

Cable Complies to the following main Standards IEC.60794 series, ANSI/ICEA S-87-640, Telcordia GR-20, ITU-T Recommendations, RoHS

Specifications

Physical Characteristics							
Fibre Count	12-72	96	144	288	432	576	864
Fibres per tube	12				24		
No. of tube	6	8	12	24	18	24	36
Nominal Cable Diameter (mm) ± 0.5mm	13.0	14.5	17.0	19.8	22.0	24.5	28.0
Nominal Cable Weight (kg/km) ± 10%	160	200	270	340	394	530	640

Mechanical and Environmental Characteristics*							
Test	Standard / Notes	Product Performance					
Max. Tensile Strength (N)	IEC-60794-1-21-E1	3000	3000	3000	3500	3500	3500
Bending Radius	IEC-60794-1-21-E11	Dynamic = 20D, Static = 15D					
Crush Resistance (N/100mm)	IEC-60794-1-21-E3	3000	3000	3000	3000	3000	3000
Impact strength (N.m)	IEC-60794-1-21-E4	25					
Torsion	IEC-60794-1-21-E7	± 180°					
Drip Test	IEC-60794-1-21-E14	30 cm, 70°C, 24 hr					
Temperature Cycling	IEC-60794-1-22-F1	Installation: -20°C to +60°C		Operation: -30°C to +70°C		Storage: -40°C to +70°C	
Water Penetration	IEC-60794-1-22-F5B	1m water head, 3m samples, 24 hrs no water leakage					

** After the test, the change in attenuation shall be ≤ 0.05 dB/km.No damage or crack on cable & no fibre break.

Cabled Optical Fibres Characteristics

The optical fibres are in accordance to the specifications ITU-T G.652D. Refer to specific data sheets for details.

Transmission Characteristics						
Fibre Type	Attenuation coefficient, dB/km (Average/Maximum)			PMD, ps/√km	PMD LDV ps/√km	Cut-off Wavelength (λcc), nm 1310nm
	1310nm	1550nm	1625nm			
G652D**	≤ 0,35 / 0,36	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0 ,20	≤ 0,10	≤ 1260

** This fibre is also available as a bend insensitive (Sterlite Tech's NOVA fibre)

Fibre Standard Colour Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

13	14	15	16	17	18	19	20	21	22	23	24
Blue	Orange	Green	Brown	Grey	White	Red	Natural	Yellow	Violet	Pink	Aqua

Tube Standard Color Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

* For more than 12 tubes, single or double stripes marking are done as per EIA/TIA 598.

Packing and Lengths

Packing: Wooden drums
Lengths (tolerance ±5%): 2km, 4km
Note - Customised drum lengths available on request.

Sheath printing details

STERLITE < Fibre Type ><Fibre Count><Product Type ><OFC Laser Symbol ><Telephone Symbol ><Month & Year of Production><Cable ID>< Meter Marking>

ARMOR-LITE® Multitube Single Jacket Steel Tape Armored

2d0864:BL024:X-TRS-

Product Details

Sterlite Tech™ARMOR-LITE® Multitube Single Jacket Steel Tape Armored Cables are suitable for direct burial as well as for duct applications. This cable is a stranded loose tube cable with optical fibres placed inside robust buffer tubes, stranded around a fibre reinforced plastic (FRP) central strength member. In addition to optical fibres, the buffer tubes contain water blocking gel, and the cable core is surrounded with water-swellable tape to prevent water ingress in the interstices of cable core. Corrugated steel tape armor surrounds the cable core with thermoplastic jacket bonded over the armor layer making the cable robust and installation friendly.

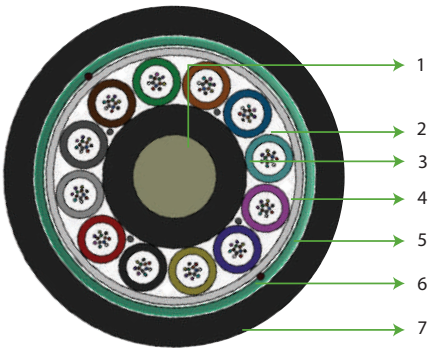
Product Application

These cables are typically used for outside plant (OSP) applications, including duct, direct buried and lashed aerial in harsh environments. They can be direct buried using plowing or trenching techniques. These cables can also be installed in ducts with either pulling or blowing techniques and in aerial applications with traditional lashing methods.

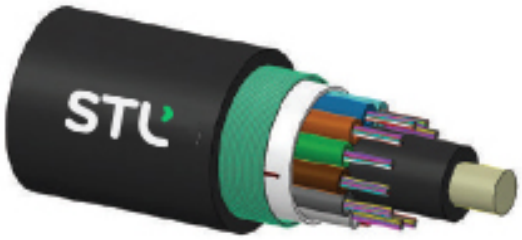
Features & Benefits

- Available up to 864 fibre count in either single-mode or multi-mode optical fibres
- Steel tape armor and PE jacket provide rodent protection along with improved crush and impact protection
- The Steel tape enables post installation cable locating
- Multitube design with ripcords for easy and quick mid span access
- Dry water-blocking technology for gel free core helps in quicker end preparation
- Easily removable rugged thermoplastic jacket
- Flexible, light weight, easy to handle & install
- Tensile and crush resistant
- UV protected
- Tightly controlled physical parameters
- Combination of fibre types available on request

Typical Construction of Cable



1. CENTRAL STRENGTH MEMBER
2. LOOSE TUBE WITH FIBRES & GEL
3. WS YARNS
4. CORE WRAPPING
5. CORRUGATED STEEL TAPE
6. RIPCORD(S)
7. OUTER SHEATH



Performance Standards

Cable complies to the following main Standards IEC.60794 series, ANSI/ICEA S-87-640, Telcordia GR-20, ITU-T Recommendations, RoHS, CPR Certification for LSZH sheath

Specifications

Physical Characteristics							
Fibre Count	12-72	96	144	288	432	576	864
Fibres per tube	12	12	12	12	24	24	24
No. of tubes	1~6	8	12	24	18	24	36
Nominal Cable Diameter (mm) ± 0.5mm	11.5	12.2	14.7	17.2	19.2	22.2	25.0
Nominal Cable Weight (kg/km) ± 10%	130	145	205	260	320	450	520

Mechanical and Environmental Characteristics*								
Test	Standard / Notes	Product Performance						
Max. Tensile Strength (N)	IEC-60794-1-21-E1	2700	3500	3500	3500	3500	3500	3500
Bending Radius	IEC-60794-1-21-E11	Dynamic = 20D, Static = 15D						
Crush Resistance (N/100mm)	IEC-60794-1-21-E3	3000	3000	3000	3000	3000	3000	3000
Impact strength (N.m)	IEC-60794-1-21-E4	25						
Torsion	IEC-60794-1-21-E7	± 180°						
Drip Test	IEC-60794-1-21-E14	30 cm, 70°C, 24 hr						
Temperature Cycling	IEC-60794-1-22-F1	Installation: -20°C to +60°C			Operation: -30°C to +70°C		Storage: -40°C to +70°C	
Water Penetration	IEC-60794-1-22-F5B	1m water head, 3m samples, 24 hrs no water leakage						

* After the test, the change in attenuation shall be ≤ 0.05 dB/km.No damage or crack on cable & no fibre break.

Cabled Optical Fibres Characteristics

The optical fibres are in accordance to the specifications ITU-T G.652D andITU-T G.655. Refer to specific data sheets for details.

Transmission Characteristics						
Fibre Type	Attenuation coefficient, dB/km (Average/Maximum)			PMD, ps/√km	PMD LDV ps/√km	Cut-off Wavelength (λcc), nm 1310nm
	1310nm	1550nm	1625nm			
G652D**	≤ 0,35 / 0,36	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0 ,20	≤ 0,1	≤ 1260
G655	-	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0 ,20	≤ 0,15	≤ 1450

** This fibre is also available as a bend insensitive (Sterlite Tech's NOVA fibre)

Fibre Standard Colour Code

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

13	14	15	16	17	18	19	20	21	22	23	24
Blue	Orange	Green	Brown	Grey	White	Red	Natural	Yellow	Violet	Pink	Aqua

Tube Standard Color Code

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

* For more than 12 tubes, single or double stripes marking are done as per EIA/TIA 598.

Packing and Lengths

Packing: Wooden drums
Lengths (tolerance ±5%): 2km, 4km
Note - Customised drum lengths available on request.

Sheath printing details

STERLITE < Fibre Type ><Fibre Count><Product Type ><OFC Laser Symbol ><Telephone Symbol ><Month & Year of Production><Cable ID>< Meter Marking>

ARMOR-LITE® Multitube Double Jacket Steel Tape Armored

2d0864:BL024:X-TRD-

Product Details

Sterlite Tech™ ARMOR-LITE® Multitube Double Jacket Steel Tape Armored Cables are suitable for direct burial as well as for duct applications. This cable is a stranded loose tube cable with optical fibre placed inside robust buffer tubes stranded around a fibre reinforced plastic (FRP) central strength member. In addition to optical fibres, the buffer tubes contain water blocking gel, and the cable core is surrounded with water-swellable tape to prevent water ingress in the interstices of cable core. Corrugated Steel Tape armor surrounds the inner sheath with thermoplastic jacket bonded to the armor layer making the cable robust and installation friendly.

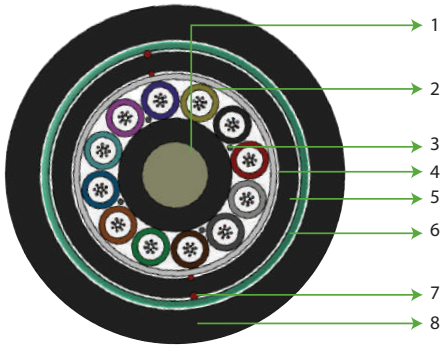
Product Application

These cables are typically used for outside plant (OSP) applications, installed mainly as direct buried. They can be buried directly using plowing or trenching techniques. These cables can also be installed in ducts with either pulling or blowing techniques and in aerial applications with traditional lashing methods.

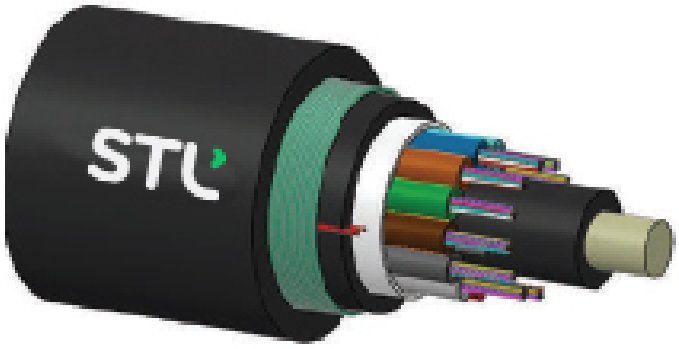
Features & Benefits

- Available up to 864 fibre count in either single-mode or multi-mode optical fibres
- Steel tape armor and PE jacket provide rodent protection along with improved crush and impact protection
- The Steel tape enables post installation cable locating
- Multitube design with ripcords for easy and quick mid span access
- Dry water-blocking technology for gel free core helps in quicker end preparation
- Easily removable rugged thermoplastic jacket
- Flexible, easy to handle & install
- Tensile and crush resistant
- UV protected
- Tightly controlled physical parameters
- Combination of fibre types available on request

Typical Construction of Cable



1. CENTRAL STRENGTH MEMBER
2. LOOSE TUBE WITH FIBRES & GEL
3. WS YARNS
4. CORE WRAPPING
5. INNER SHEATH
6. CORRUGATED STEEL TAPE
7. RIPCORD(S)
8. OUTER SHEATH



Performance Standards

Cable complies to the following main Standards IEC. 60794 series, ANSI/ICEA S-87-640, Telcordia GR-20, ITU-T Recommendations, RoHS CPR rating for LSZH sheath

Specifications

Physical Characteristics							
Fibre Count	12-72	96	144	288	432	576	864
Fibres per tube	12	12	12	12	24	24	24
No. of tubes	1~6	8	12	24	18	24	36
Nominal Cable Diameter (mm) ± 0.5mm	13.0	14.5	17.0	19.2	21.5	24.2	27
Nominal Cable Weight (kg/km) ± 10%	150	190	260	315	380	520	600

Mechanical and Environmental Characteristics*								
Test	Standard / Notes	Product Performance						
Max. Tensile Strength (N)	IEC-60794-1-21-E1	3000	3000	3000	3000	3000	3000	3000
Bending Radius	IEC-60794-1-21-E11	Dynamic = 20D, Static = 15D						
Crush Resistance (N/100mm)	IEC-60794-1-21-E3	3500	3500	3500	3500	3500	3500	3500
Impact strength (N.m)	IEC-60794-1-21-E4	50						
Torsion	IEC-60794-1-21-E7	± 180°						
Drip Test	IEC-60794-1-21-E14	30 cm, 70°C, 24 hr						
Temperature Cycling	IEC-60794-1-22-F1	Installation: -20°C to +60°C			Operation: -30°C to +70°C		Storage: -40°C to +70°C	
Water Penetration	IEC-60794-1-22-F5B	1m water head, 3m samples, 24 hrs no water leakage						

** After the test, the change in attenuation shall be ≤ 0.05 dB/km. No damage or crack on cable & no fibre break.

Cabled Optical Fibres Characteristics

The optical fibres are in accordance to the specifications ITU-T G.652D andITU-T G.655. Refer to specific data sheets for details.

Transmission Characteristics						
Fibre Type	Attenuation coefficient, dB/km (Average/Maximum)			PMD, ps/√km	PMD LDV ps/√km	Cut-off Wavelength (λcc), nm 1310nm
	1310nm	1550nm	1625nm			
G652D**	≤ 0,35 / 0,36	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0 ,20	≤ 0,10	≤ 1260
G655	-	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0 ,20	≤ 0,15	≤ 1450

** This fibre is also available as a bend insensitive (Sterlite Tech's NOVA fibre)

Fibre Standard Colour Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

13	14	15	16	17	18	19	20	21	22	23	24
Blue	Orange	Green	Brown	Grey	White	Red	Natural	Yellow	Violet	Pink	Aqua

Tube Standard Color Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

* For more than 12 tubes, single or double stripes marking are done as per EIA/TIA 598.

Packing and Lengths

Packing: Wooden drums with protection
Lengths (tolerance ±5%): 2km, 4km
Note - Customised drum lengths available on request.

Sheath printing details

STERLITE < Fibre Type ><Fibre Count><Product Type ><OFC Laser Symbol ><Telephone Symbol ><Month & Year of Production><Cable ID>< Meter Marking>

ARMOR-LITE® Multitube Double Jacket Steel Wire Armored

2d0144:BL012:X-WRD-

Product Details

Sterlite Tech™ARMOR-LITE® Multitube Double Jacket Steel Wire Armored Cables are especially suited for harsh installation environment. This cable is a stranded loose tube cable with optical fibres placed inside robust buffer tubes stranded around a fibre reinforced plastic (FRP) central strength member. In addition to optical fibres, the buffer tubes contain water blocking gel, and the cable core is surrounded with water-swellable tape to prevent water ingress in the interstices of cable core. Steel wire armor surrounds the inner sheath with thermoplastic jacket placed over the armor layer making the cable robust and installation friendly.

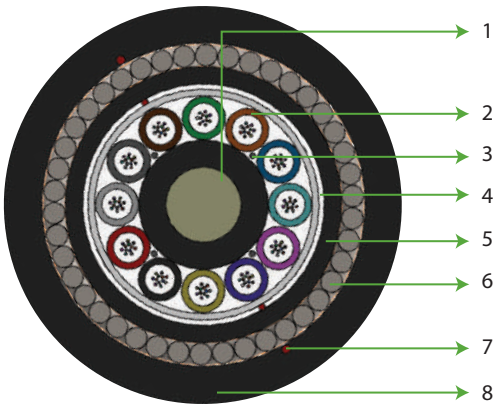
Product Application

These cables are typically used in heavy construction zones including heavy traffic area, wind farm developments, pipelines, oil and gas fields, heavy industrial sites and a variety of additional harsh environments. This cable is suitable for direct buried and other hazardous applications and are typically used in harsh environments.

Features & Benefits

- Available up to 144 Fibre count in either single-mode or multi-mode optical fibres
- Steel wire armoring has excellent mechanical performance with high tensile properties
- Very high crush and impact resistant cable, suitable for harsh installation environment
- Cable can be offered with laminated aluminum for added moisture protection
- Steel wire armor and PE jacket provide rodent protection along with improved crush and impact protection
- The Steel wire enables post installation cable locating
- Multitube design with ripcords for easy and quick mid-span access
- Dry water-blocking technology for gel free core helps in quicker end preparation
- Easily removable rugged thermoplastic jacket
- Flexible, easy to handle & install
- UV protected
- Tightly controlled physical parameters
- Combination of fibre types available on request

Typical Construction of Cable



1. CENTRAL STRENGTH MEMBER
2. LOOSE TUBE WITH FIBRES & GEL
3. WS YARNS
4. CORE WRAPPING
5. INNER SHEATH
6. STEEL WIRE ARMOR
7. RIPCORD(S)
8. OUTER SHEATH

Performance Standards

Cable complies to the following main Standards IEC.60794 series, ANSI/ICEA S-87-640, Telcordia GR-20, ITU-T Recommendations, RoHS,

Specifications

Physical Characteristics			
Fibre Count	12-72	96	144
Fibres per tube	12	12	12
No. of tubes	1~6	8	12
Nominal Cable Diameter (mm) ± 0.5mm	15.5	17.0	19.5
Nominal Cable Weight (kg/km) ± 10%	420	500	625

Mechanical and Environmental Characteristics*				
Test	Standard / Notes	Product Performance		
Max. Tensile Strength (N)	IEC-60794-1-21-E1	10000	10000	10000
Bending Radius	IEC-60794-1-21-E11	Dynamic = 20D, Static = 15D		
Crush Resistance (N/100mm)	IEC-60794-1-21-E3	5000	5000	5000
Impact strength (N.m)	IEC-60794-1-21-E4	50		
Torsion	IEC-60794-1-21-E7	± 180°		
Drip Test	IEC-60794-1-21-E14	30 cm, 70°C, 24 hr		
Temperature Cycling	IEC-60794-1-22-F1	Installation: -20°C to +60°C	Operation: -30°C to +70°C	Storage: -40°C to +70°C
Water Penetration	IEC-60794-1-22-F5B	1m water head, 3m samples, 24 hrs no water leakage		

** After the test, the change in attenuation shall be ≤ 0.05 dB/km. No damage or crack on cable & no fibre break.

Cabled Optical Fibres Characteristics

The optical fibres are in accordance to the specifications ITU-T G.652D. Refer to specific data sheets for details.

Transmission Characteristics						
Fibre Type	Attenuation coefficient, dB/km (Average/Maximum)			PMD, ps/√km	PMD LDV ps/√km	Cut-off Wavelength (λcc), nm 1310nm
	1310nm	1550nm	1625nm			
G652D**	≤ 0,35 / 0,36	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0 ,20	≤ 0,10	≤ 1260

** This fibre is also available as a bend insensitive (Sterlite Tech's NOVA fibre)

Fibre Standard Colour Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Tube Standard Color Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Packing and Lengths

Packing: Wooden drums
Lengths (tolerance ±5%): 2km, 4km
Note - Customised drum lengths available on request.

Sheath printing details

STERLITE < Fibre Type ><Fibre Count><Product Type ><OFC Laser Symbol ><Telephone Symbol ><Month & Year of Production><Cable ID>< Meter Marking>

DUCT-LITE® Gel Free Multitube Single Jacket

2d0288:DL012:D---S-

Product Details

Sterlite Tech™ DUCT-LITE® GEL Free Multitube Single Jacket Fibre Optic Cables are suitable for duct applications. This cable is a stranded loose tube cable with optical fibres placed inside robust buffer tubes stranded around a fibre reinforced plastic (FRP) central strength member. As opposed to Gel filled, water is blocked by water- swellable yarns and the cable core is surrounded with water-swellable tape to prevent water ingress in the interstices of cable core. The cable core is surrounded with thermoplastic sheath making the cable robust and installation friendly.

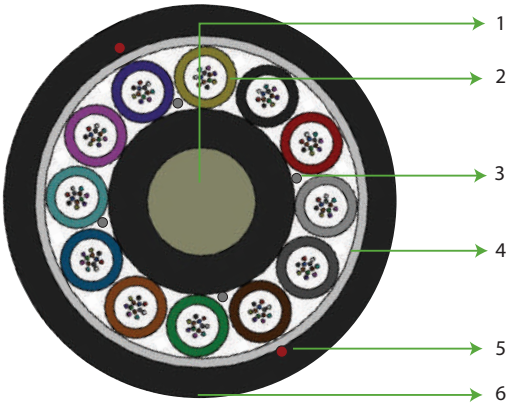
Product Application

These cables are typically used for outside plant (OSP) applications, including duct and lashed aerial in harsh environments.They can be installed in ducts with either pulling, trenching or blowing techniques and in aerial applications with traditional lashing methods.

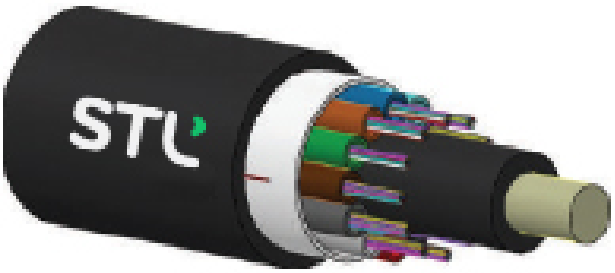
Features & Benefits

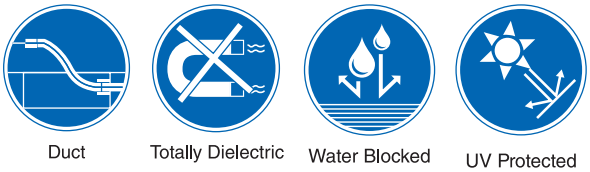
- Available up to 288 fibre count in either single-mode or multi-mode optical fibres
- Multitube design with ripcords for easy and quick mid span access.
- Dry water blocking materials inside and outside the tubes enable full water protection.
- Water blocking yarns inside tubes enable rapid, clean fibre splicing and storage inside the joint enclosures.
- Easily removable rugged thermoplastic jacket.
- Flexible, light weight, easy to handle & install.
- Tensile and crush resistant.
- UV protected.
- Tightly controlled physical parameters.
- Combination of fibre types available on request

Typical Construction of Cable



1. CENTRAL STRENGTH MEMBER
2. LOOSE TUBE WITH FIBRES & WATER SWELLABLE YEARNS
3. WS YARNS
4. CORE WRAPPING
5. RIPCORD(S)
6. OUTER SHEATH





Performance Standards

Cable complies to the following main Standards IEC.60794 series, ANSI/ICEA S-87-640, Telcordia GR-20, ITU-T Recommendations, RoHS CPR rating for LSZH sheath

Specifications

Physical Characteristics				
Fibre Count	12-72	96	144	288
Fibres per tube	12	12	12	12
No. of tube	1~6	8	12	24
Nominal Cable Diameter (mm) ± 0.5mm	10.8	12.5	16.0	18.2
Nominal Cable Weight (kg/km) ± 10%	80	110	175	190

Mechanical and Environmental Characteristics*					
Test	Standard / Notes	Product Performance			
Max. Tensile Strength (N)	IEC-60794-1-21-E1	2700	2700	2700	2700
Bending Radius	IEC-60794-1-21-E11	Dynamic = 20D, Static = 15D			
Crush Resistance (N/100mm)	IEC-60794-1-21-E3	2000	2000	2000	2000
Impact strength (N.m)	IEC-60794-1-21-E4	25			
Torsion	IEC-60794-1-21-E7	± 180°			
Temperature Cycling	IEC-60794-1-22-F1	Installation: -20°C to +60°C	Operation: -30°C to +70°C	Storage: -40°C to +70°C	
Water Penetration	IEC-60794-1-22-F5B	1m water head, 3m samples, 24 hrs no water leakage			

** After the test, the change in attenuation shall be ≤ 0.05 dB/km. No damage or crack on cable & no fibre break.

Cabled Optical Fibres Characteristics

The optical fibres are in accordance to the specifications ITU-T G.652D. Refer to specific data sheets for details.

Transmission Characteristics						
Fibre Type	Attenuation coefficient, dB/km (Average/Maximum)			PMD, ps/√km	PMD LDV, ps/√km	Cut-off Wavelength (λcc), nm 1310nm
	1310nm	1550nm	1625nm			
G652D**	≤ 0,35 / 0,36	≤ 0,25 / ≤ 0,26	-	≤ 0 ,20	≤ 0,10	≤ 1260

** This fibre is also available as a bend insensitive (Sterlite Tech's NOVA fibre)

Fibre Standard Colour Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

13	14	15	16	17	18	19	20	21	22	23	24
Blue	Orange	Green	Brown	Grey	White	Red	Natural	Yellow	Violet	Pink	Aqua

Tube Standard Color Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Packing and Lengths

Packing: Wooden drums
Lengths (tolerance ±5%): 2km, 4km
Note - Customized drum lengths available on request.

Sheath printing details

STERLITE < Fibre Type ><Fibre Count><Product Type ><OFC Laser Symbol ><Telephone Symbol ><Month & Year of Production><Cable ID>< Meter Marking>

ARMOR-LITE® Gel Free Multitube Single Jacket Steel Tape Armored

2d0288:BL012:D-TRS-

Product Details

Sterlite Tech™ ARMOR-LITE® Gel Free Multitube Single Jacket Steel Tape Armored Cables are suitable for direct burial as well as for duct applications. This cable is a stranded loose tube cable with optical fibres placed inside robust buffer tubes stranded around a fibre reinforced plastic (FRP) central strength member. In addition to optical fibres, the buffer tubes contain water swellable yarns and the cable core is surrounded with water-swellable tape to prevent water ingress in the interstices of cable core. Corrugated Steel Tape armor surrounds the cable core with thermoplastic jacket placed over the armor layer making the cable robust and installation friendly.

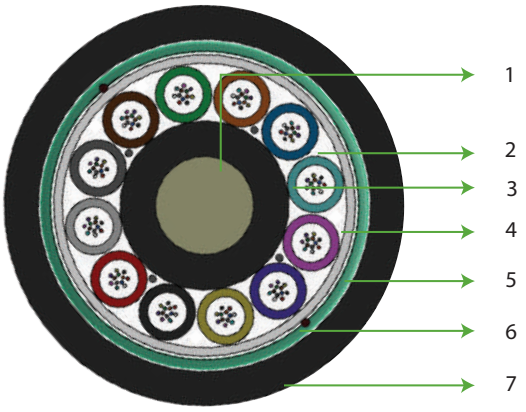
Product Application

These cables are typically used for outside plant (OSP) applications, including duct and direct buried installations in harsh environments. They can be direct buried using plowing or trenching techniques. These cables can also be installed in ducts with either pulling or blowing techniques and in aerial applications with traditional lashing methods.

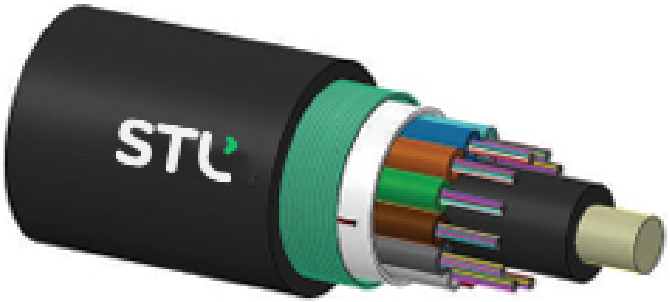
Features & Benefits

- Available up to 288 fibre count in either single-mode or multi-mode optical fibres
- Steel tape armor and PE jacket provide rodent protection along with improved crush and impact protection
- The Steel tape enables post installation cable locating
- Multitube design with ripcords for easy and quick mid span access
- Dry water blocking materials inside and outside the tubes enable full water protection
- Water blocking yarns inside tubes enable rapid, cleanfibre splicing and storage inside the joint enclosures
- Easily removable rugged thermoplastic jacket
- Flexible, light weight, easy to handle & install
- Tensile and crush resistant
- UV protected
- Tightly controlled physical parameters
- Combination of fibre types available on request

Typical Construction of Cable



1. CENTRAL STRENGTH MEMBER
2. LOOSE TUBE WITH FIBRES & WATER SWELLABLE YARNS
3. WS YARNS
4. CORE WRAPPING
5. CORRUGATED STEEL TAPE
6. RIPCORD(S)
7. OUTER SHEATH



Performance Standards

Cable complies to the following main Standards IEC.60794 series, ANSI/ICEA S-87-640, Telcordia GR-20, ITU-T Recommendations, CPR certification for LSZH sheath, RoHS

Specifications

Physical Characteristics				
Fibre Count	12-72	96	144	288
Fibres per tube	12	12	12	12
No. of tubes	1~6	8	12	24
Nominal Cable Diameter (mm) ± 0.5mm	12.4	14.0	17.4	19.5
Nominal Cable Weight (kg/km) ± 10%	135	170	250	280

Mechanical and Environmental Characteristics*					
Test	Standard / Notes	Product Performance			
Max. Tensile Strength (N)	IEC-60794-1-21-E1	2700	2700	2700	2700
Bending Radius	IEC-60794-1-21-E11	Dynamic = 20D, Static = 15D			
Crush Resistance (N/100mm)	IEC-60794-1-21-E3	3000	3000	3000	3000
Impact strength (N.m)	IEC-60794-1-21-E4	25			
Torsion	IEC-60794-1-21-E7	± 180°			
Temperature Cycling	IEC-60794-1-22-F1	Installation: -20°C to +60°C	Operation: -30°C to +70°C	Storage: -40°C to +70°C	
Water Penetration	IEC-60794-1-22-F5B	1m water head, 3m samples, 24 hrs no water leakage			

** After the test, the change in attenuation shall be ≤ 0.05 dB/km. No damage or crack on cable & no fibre break.

Cabled Optical Fibres Characteristics

The optical fibres are in accordance to the specifications ITU-T G.652D and IT. Refer to specific data sheets for details.

Transmission Characteristics						
Fibre Type	Attenuation coefficient, dB/km (Average/Maximum)			PMD, ps/√km	PMD LDV ps/√km	Cut-off Wavelength (λcc), nm 1310nm
	1310nm	1550nm	1625nm			
G652D**	≤ 0,35 / 0,36	≤ 0,25 / ≤ 0,26	≤ 0,24 / ≤ 0,26	≤ 0 ,20	≤ 0,10	≤ 1260

** This fibre is also available as a bend insensitive (Sterlite Tech's NOVA fibre)

Fibre Standard Colour Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Tube Standard Color Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

13	14	15	16	17	18	19	20	21	22	23	24
Blue	Orange	Green	Brown	Grey	White	Red	Natural	Yellow	Violet	Pink	Aqua

Packing and Lengths

Packing: Wooden drums
Lengths (tolerance ±5%): 2km, 4km
Note - Customised drum lengths available on request.

Sheath printing details

STERLITE < Fibre Type ><Fibre Count><Product Type ><OFC Laser Symbol ><Telephone Symbol ><Month & Year of Production><Cable ID>< Meter Marking>

ARMOR–LITE® Multitube Double Jacket FRP Armored

2d0144:BL012:X-FRD-

Product Details

Sterlite Tech™ ARMOR–LITE® Multitube Double Jacket FRP Armored Fibre Optic Cables are suitable for use in ducts or overhead scenarios. This cable is a stranded loose tube cable with optical fibres placed inside robust buffer tubes stranded around a fibre reinforced plastic (FRP) central strength member. In addition to optical fibres, the buffer tubes contain water blocking gel and the cable core is surrounded with water-swellable tape and water-swellable yarns to prevent water ingress in the interstices of cable core. Flat FRP are hrlically wrapped over the inner sheath and an overall thermoplastic jacket provides the cable with both mechanical and environmental protection.

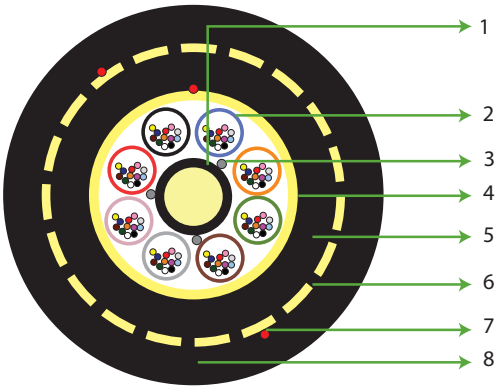
Product Application

These cables are typically used for outside plant (OSP) application and for multipurpose installation (overhead, direct buried, in ducts). Mainly usedinaerial applications for short to medium span-lengths including deployment along existing aerial rights-of-way and electric transmission towers.This cable is also suitable for aerial-to-duct / underground/direct buried transitions.

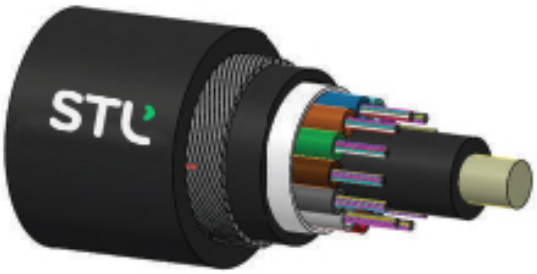
Features & Benefits

- Available up to 96 fibre count in either single-mode or multi-mode optical fibres
- Double Jacket and dielectric armoring provides additional protection against crush and impact and also protects against rodent attacks.
- Multitube design with ripcords for easy and quick mid span access.
- Dry water-blocking technology for gel free core helps in quicker end preparation.
- Easily removable rugged thermoplastic jacket.
- Flexible, light weight, easy to handle &install.
- Tensile and crush resistant.
- UV protected.
- Tightly controlled physical parameters.
- Combination of fibre types available on request

Typical Construction of Cable



1. CENTRAL STRENGTH MEMBER
2. LOOSE TUBE WITH FIBRES & GEL
3. WS YARNS
4. CORE WRAPPING
5. INNER SHEATH
6. FLAT FRP STRENGTH MEMBER
7. RIPCORD(S)
8. OUTER SHEATH



Performance Standards

Cable complies to the following main Standards IEC.60794 series, ANSI/ICEA S-87-640, Telcordia GR-20, ITU-T Recommendations

Specifications

Physical Characteristics		
Fibre Count	12-72	144
Fibres per tube	12	12
No. of tubes	1~6	12
Nominal Cable Diameter (mm) ± 0.5mm	11.2	16.5
Nominal Cable Weight (kg/km) ± 10%	95	200

Mechanical and Environmental Characteristics*				
Test	Standard / Notes	Product Performance		
Maximum Operating Tension	IEC-60794-1-21-E1	9000 N	9600 N	
Bending Radius	IEC-60794-1-21-E11	Dynamic = 20D, Static = 15D		
Crush Resistance (N/100mm)	IEC-60794-1-21-E3	4000	4000	
Impact strength (N.m)	IEC-60794-1-21-E4	25		
Torsion	IEC-60794-1-21-E7	± 180°		
Drip Test	IEC-60794-1-21-E14	30 cm, 70°C, 24 hr		
Temperature Cycling	IEC-60794-1-22-F1	Installation: -20°C to +60°C	Operation: -40°C to +70°C	Storage: -40°C to +70°C
Water Penetration	IEC-60794-1-22-F5B	1m water head, 3m samples, 24 hrs no water leakage		

** After the test, the change in attenuation shall be ≤ 0.05 dB/km. No damage or crack on cable & no fibre break.

Cabled Optical Fibres Characteristics

The optical fibres are in accordance to the specifications ITU-T G.652D. Refer to specific data sheets for details.

Transmission Characteristics						
Fibre Type	Attenuation coefficient, dB/km (Average/Maximum)			PMD, ps/√km	PMD LDV, ps/√km	Cut-off Wavelength (λcc), nm 1310nm
	1310nm	1550nm	1625nm			
G652D**	≤ 0,35 / 0,36	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0 ,20	≤ 0,1	≤ 1260

** This fibre is also available as a bend insensitive (Sterlite Tech's NOVA fibre)

Fibre Standard Colour Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Tube Standard Color Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Packing and Lengths

Packing: Wooden drums
Lengths (tolerance ±5%): 2km
Note - Customised drum lengths available on request.

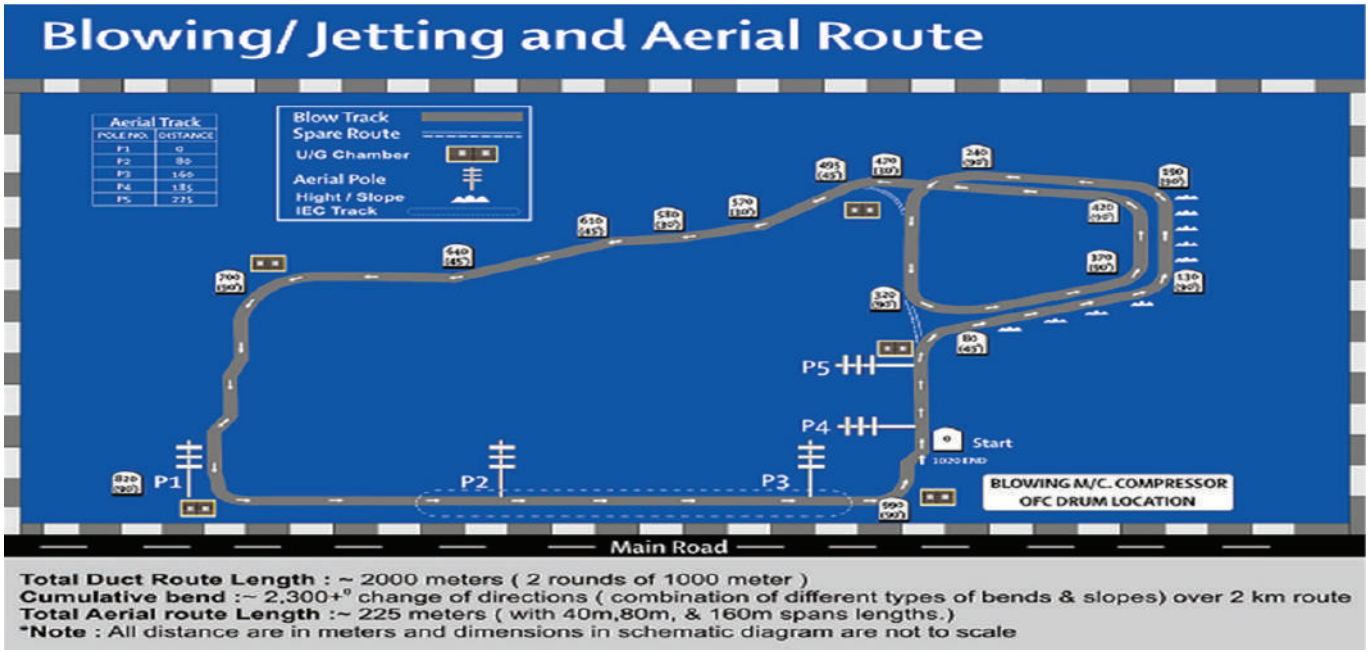
Sheath printing details

STERLITE < Fibre Type ><Fibre Count><Product Type ><OFC Laser Symbol ><Telephone Symbol ><Month & Year of Production><Cable ID>< Meter Marking>

World-Class OFC Manufacturing Facilities

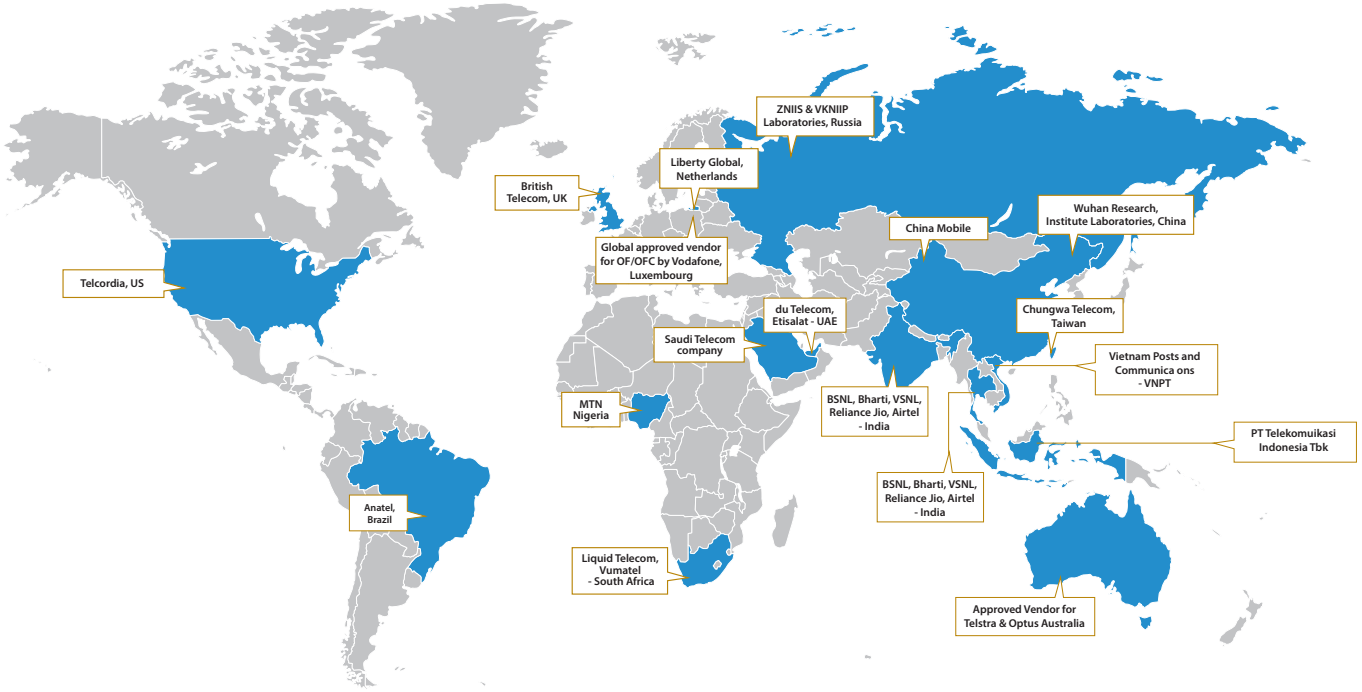
Reliability Lab

Application Engineering Lab



Fully Integrated Application Lab

Global Certifications & Approvals



ISO 9001:2008

ISO 14001:2004

OHSAS 18001:2007

Telcordia, US

TL 9000 (R5)

ISO 22301:2012 BCMS Business Continuity Management

British Safety Council - 5 Star Rating

RoHS Certifications (Fibre)

ASQ Six Sigma

CPR

Empowering Lives

STERLITE TECH'S APPROACH TOWARDS SOCIAL RESPONSIBILITY

CSR at Sterlite Tech is seamlessly interwoven in its business operations. Connectivity, Innovation and Sustainability are not only the predominant criteria for all the company's businesses, but also the overarching themes to create Shared Value. They form the core of how CSR is planned and implemented at Sterlite Tech. All of our CSR initiatives are also closely aligned to our vision of transforming everyday living by delivering smarter networks. Sustainability and innovation are at the core of Sterlite Tech's CSR operations.

EDUCATION & EMPOWERMENT

Virtual Classroom
Jeewan Jyoti

173,000
Children impacted by Education initiatives

28,000
Lives indirectly impacted through Women Empowerment initiatives

HEALTH

Last Mile Access
Healthcare solution

250,000
Lives impacted by Health initiatives

1,500
Lives impacted by child welfare initiatives

ENVIRONMENT

Water & Sanitation
Swachh Bharat

35,000
Lives impacted by Water Conservation initiatives

4,000
Lives impacted by Sanitation initiatives

Sterlite Tech's facilities are zero discharge facilities, and the company is committed to 100% self-reliance in water sourcing in the future-

900 m3 of water per month recycled & reused till date	**2.7 times** the water consumed is replenished through Jaldoot	**150%** Storage capacity of the redeveloped check dams enhanced	**84%** Increase in water holding capacity of wells	**35%** Water consumption reduced through own operations	**35%** Increase in the cotton cropping in the area




Creating Shared Value

Sterlite Tech's Sustainability and CSR initiatives are seamlessly integrated in its purpose – 'Transforming Everyday Living by Delivering Smarter Networks' – and are influenced by The UN's Sustainable Development Goals and 10 principles of the UN Global Compact Network. This enables the company to focus on ensuring responsible manufacturing, fostering a safe workplace, conserving natural resources, creating shared value, and innovating on product lifecycle.

Ensuring Responsible Manufacturing

Our manufacturing facilities are certified as per ISO 14001:2004 Environmental Management Systems, and we continuously improve our manufacturing process to enhance efficiency, reduce waste, and optimise resource consumption. We take pride in the fact that our manufacturing units are zero liquid discharge facilities, and we recycle effluent back into our processes after multiple stages of treatment. We reuse and recycle packaging items such as spools, cardboard boxes, wooden pallets etc, demonstrating our commitment to resource consumption.

Fostering a Safe Workplace

Safety has always been paramount for us and we leave no stone unturned to inculcate a safe working practices in day-to-day activities for every employee. We continue to maintain our achievement of having zero reportable accidents, which has been achieved through rigorous and round-the-year safety audits and trainings. All of our units are certified as per OHSAS 18001:2007 standards and have regularly received accolades from the British Safety Council and National Safety, Council among others.

Conserving Natural Resources

We firmly believe that adopting sustainable practices are crucial to ensuring the longevity of any business. We consider natural resource conversation as one of the top priorities and have ensured several interventions towards this. We harvest rainwater, which is collected within our plant premises, and channel it to recharge the groundwater reserves. Through our efforts within plant premises as well as in the nearby community, we have made our operations water positive, conserving more than 2.7 times water that we consume in manufacturing. The use of transparent sheets on roof of shop floor to take advantage of sunlight has brought us significant saving in electricity consumption. Also, by covering these roofs with rockwool, we are able to improve insulation thus lowering the temperature and reducing cooling load.

Creating Shared Value for Society

Driven by our aspiration to be a responsible leader by ensuring inclusive growth for all stakeholders, we have been working with the community in the fields of education, women empowerment, health, and environment. Through these initiatives, we have impacted over 432,000 lives till date. Our interventions are strongly influence by UN's Sustainable Development Goals and 10 principles of the UN Global Compact Network.

Innovating on Product Lifecycle

Our R&D efforts, while focused on creating products catering to ever-evolving requirements as well as overcoming challenges, also give due consideration to environmental impacts at every life cycle stage from raw material extraction, manufacturing, use and eventual end-of-life. By adopting various approaches such as material substitution, innovative design and light weighting among others, we have incorporated life cycle thinking into our products right at the development phase. This has helped us improve upon the sustainability credentials of our products such as reducing carbon footprint. Our products are hence ready for a sustainable and connected future.

Sterlite Tech Customer Support

QUALITY IS THE KEY FOCUS

We have a rigorous, integrated system of quality checks, physical inspections, analytical controls, world-class manufacturing practices and comprehensive traceability procedures which we implement at all our production and distribution facilities. In addition to our in-house quality control tools and procedures, our operations comply with the highest EU and worldwide safety regulations established by numerous international authorities like:

ISO | British Standards (BSEN) | EIA/TIA | CEI-IEC

ITU | GR 20 CORE | OHSAS | CPR

Our products have been tested & certified by various renowned laboratories across the globe such as CACT, WRI, BT, etc.

Sterlite Tech now offers smarter Optical Fibre Cables compliant with Construction Products Regulation (CPR) harmonised European EU305/2011

CUSTOMER SUPPORT

With a global presence across five continents, Sterlite Tech always has a relationship manager who is a mere phone call away*, to understand your growth aspirations and to explore areas where we can add value to your business. We have also partnered with reputed global logistics service providers to ensure that consignment delivery processes are streamlined.

*The contact and address of our sales offices can be found at the end of this catalogue

STERLITE TECH PRODUCT WARRANTY

Cable lifetime is greater than 25 years and warranty period is 2 years from date of delivery to customer

Terms and Conditions

Seller confirm that the Product sold shall be of best quality and workmanship and shall be strictly in accordance with specifications and particulars contained in the order and all fibre should be new and come with a 100% warranty against defects and quality aforesaid for a period of 2 (two) years from the date of supply. The Seller's liability shall, at the option of the Seller, be limited to (a) the cost of replacing the Products in question; or (b) the cost of repairing the Products in question; or (c) the replacement of the Products in question; or (d) the repair of the Products in question. If any warranty period is prescribed under the applicable law then such period shall prevail. No warranty is made to claims arising out of combinations of the Products with Products provided by others or to claims resulting from compliance of the Products with Purchaser's design or specifications. Purchaser assumes and shall hold Seller harmless against any patent liability for Products manufactured to patent's design or specifications or specially designed by Seller to meet Purchaser's requirements.

The Warranty given herein shall be void if the Product has been improperly installed, laid, stored or handled or has been misplaced, misused, abused, neglected, vandalized, or damaged. This Warranty shall also be void on account of any damage that is attributed or attributable to any accident, abnormal operation of the Product or where the same is a repaired, altered or modified or removed from the original site of its original installation. The Warranty given hereby also does not cover any damage arising out of insignificant deviations, normal wear and tear of the Product, and its quality and/or performance parameters affected by exposure to extreme atmospheric conditions outside of the specification contained in the order. The provisions of this Warranty shall inure to the benefit of the end-users of the Product provided the Warranty given hereby, including the Conditions and Procedures mentioned herein, shall be applicable to them as if the same were imposed by Seller directly on such end-users.

If the goods supplied develop a defect purchaser should notify the seller in writing as soon as possible, but in any event within 7 days of the date the defect is discovered. Seller shall within 2 weeks from such notice will identify the defect and will submit the remedy plan to Purchaser. Seller commits to rectify the defect in four weeks from the submission of remedy plan to Purchasers.

The parties agree that in any case where a defect is notified in writing ,Seller shall be given a reasonable period of one week (7) days to examine the issue thoroughly and to further determine the reasons which are attributable to the defect. In any case of disagreement between the parties with regard to claims arising out of the Products, the parties specifically agree to mutually appoint an independent 3rd party expert to determine reasons and party at default will pay the cost of such independent examination.

Testimonials

With the global consumption behaviour shifting towards data, we are aiming to bring the next revolution in telecommunications through service innovation, and improving agility through a future-proof digital infrastructure. In-line with these requirements to evolve, we are matching our smarter network offerings that are ready for transition towards next-generation networks and Internet of Things. Partnering with Sterlite Tech has proved to be significantly beneficial as they understand our technological aspirations and have continually impressed us by delivering first-rate optical communication solutions.

Saleem AlBlooshi, Executive Vice President
Infrastructure & Technology, du

BT is pleased to confirm that in September 2009 it awarded Sterlite Tech a contract for the supply of Optical Fibre Cable. Sterlite Tech supplied around 5,000 kilometres of high fibre count cable into the Core and Access sections of BT's fibre network. Due to their commitment to supplying BT, Sterlite Tech recorded a 100% score on product quality.
BT is currently rolling out a programme of Fibre to the Cabinet and Fibre to the Home installations across the UK, and Sterlite Tech's optical duct cable and micro cable are an essential part of these critical projects. I trust this is of interest in your evaluation of Sterlite Tech's abilities within this area.

David Singleton
Procurement Manager, BT

Sterlite Tech Fibrs Optic Cable was delivered to our facility on time and people in the field were already lined up to install without any delays in schedule.
Our splicers and construction crew have had a positive experience working with Sterlite Tech cable, and it has worked seamlessly with our existing plant. Our OTDR shows great results on all the splices. Overall, we are very pleased with our experience with Sterlite Tech and I would gladly recommend it to others.
Thank you for your support on all our projects.

Mark Carrasco, C.O. Manager
Cherokee Telephone

A reasonable set of splices were made between Sterlite Tech G.652 fibre and fibre from three other suppliers. Splice loss measurements of insertion loss demonstrate that the Sterlite Tech 6.652 fibre can be compatibly spliced with other commercially available fibre.
Operators should not expect issues regarding fibre compatibility between new cable and embedded plant when deploying cables containing Sterlite Tech G652 fibre.

Helmut Knehr, Project Manager
Telcordia

I discovered an ambitious manufacturer ready to perform orders to the best satisfaction of its customer. Cleanliness of the plant and the laboratories; and large investments on equipment are proof that Sterlite Tech wants to become the most competitive manufacturer.

D. LeGo., Sourcing Manager
Alstom T&D SA

We are convinced that Sterlite Tech can fulfill our requirements, and we look forward to a long and fruitful relationship.

Bengt Nystrom, Managing Director
Necks Electric

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Maharashtra, India.
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Fax: 91 24 02564598

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Fax: +91 24 02564598

AL-23, Shendra MIDC SEZ,
Aurangabad 431 201,Maharashtra, India.
Phone: +91 24 02622020

777, Beihai, Beihai Road, Haimen Town,
Hai Men City, China.

Optical Fibre Cables
Survey No. 68/1, Rakholi Village, Madhuban
Dam Road 396230, Union Territory of Dadra
& Nagar Haveli, India.
Phone: +91 26 06612000
Fax: +91 26 06612013

Sterlite Tech Conduspar Industries Ltd.
RuaDr.Muricy, 4000, Costeria, CEP 83015
290, Sao Jose dos Pinhais - PR, Brazil
Phone: +55 41 21096000

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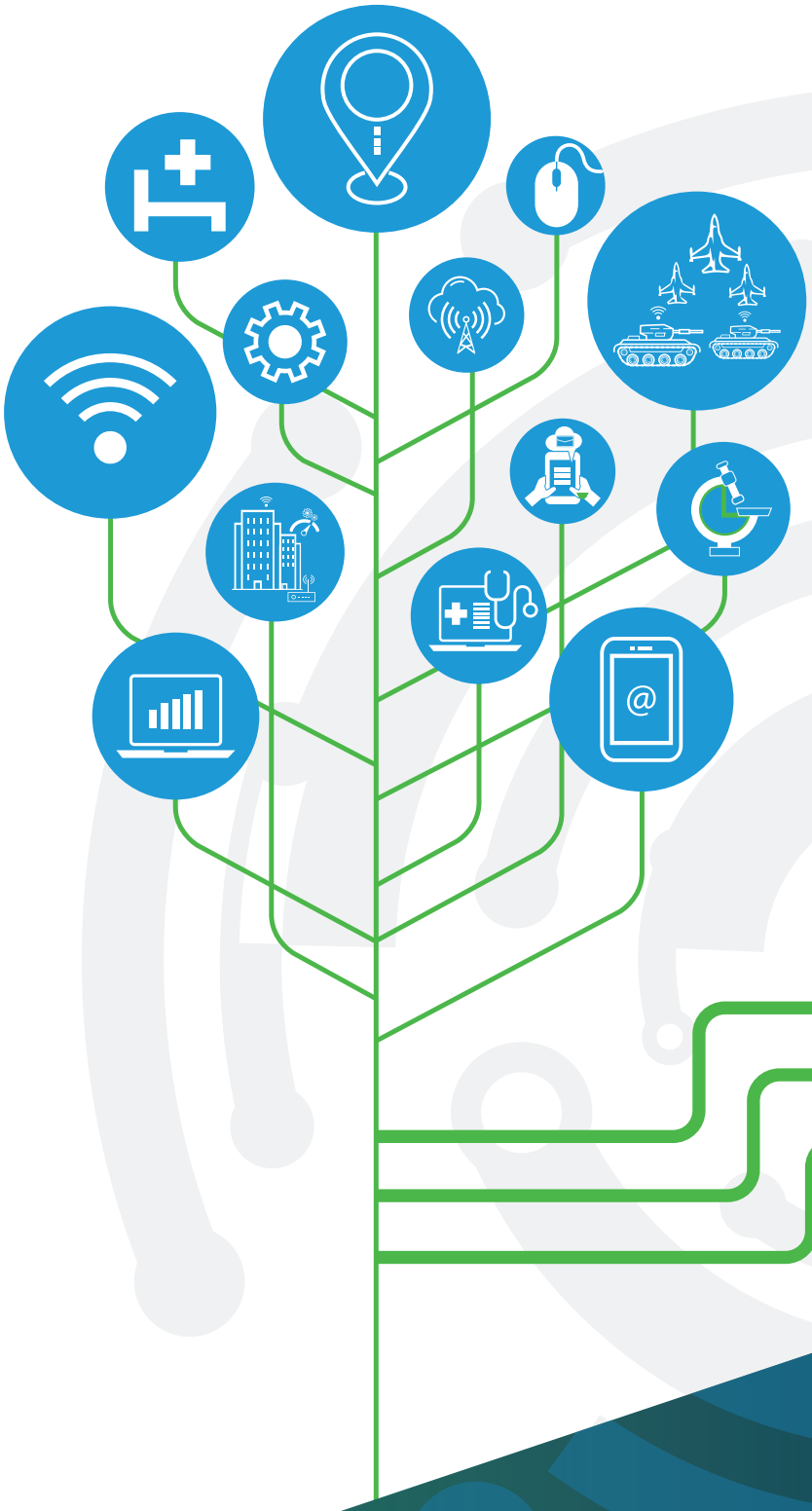
Phone: +91 26 06613800
Fax: +91 26 06612122

NOTES

STL



DESIGN

BUILD

MANAGE

Transforming Everyday Living by
Delivering Smarter Networks

TRANSFORMING EVERYDAY LIVING BY DELIVERING SMARTER NETWORKS

Brazil I China I France I Germany I India I Italy I Ivory Coast I Mexico
Netherlands I Singapore I South Africa I Turkey I UAE I UK I US

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