

Industrial Fiber Optic Cables, LSZH™ Tray-Rated, Double-Jacket, Cold Temperature Cable

CORNING

Features and Benefits

Double-jacket, gel-filled

Cold temperature environments

Low-smoke, zero-halogen sheath

Key life-safety benefit

Meets cyclic impact and chemical resistance test

Superior performance

Tray-rated per UL 13; UL 444; UL 1277; UL 1685; CSA C22.2 No. 230 and No. 232

Tested to industrial ruggedness standards

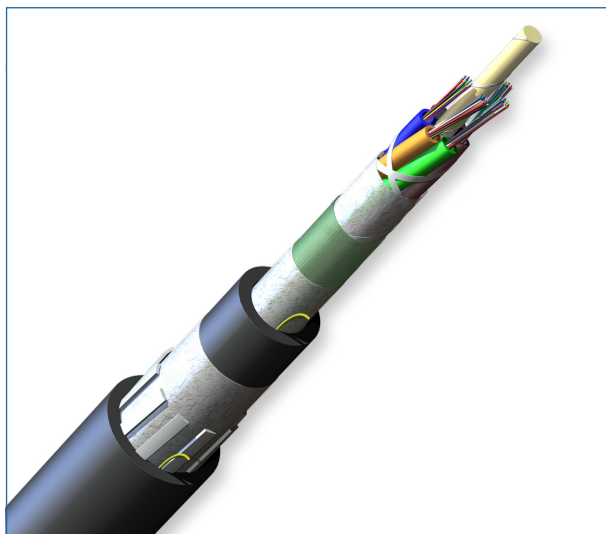
Listed OFN-LS and CSA FT4-ST1, IEC 60332-3, IEC 61034 and IEC 60754-2

Meets burn test criteria

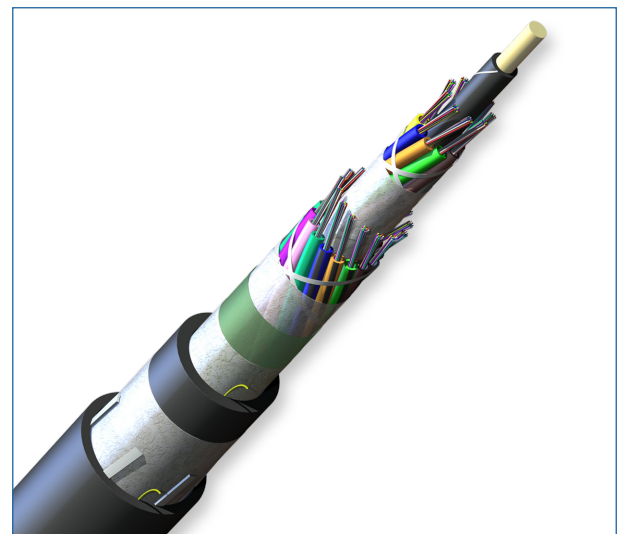
Corning LSZH™ industrial fiber optic cables are designed for industrial building backbones and harsh environments atypical of traditional datacom systems. Based on proven stranded loose tube cable designs, these tray-rated industrial cables are flame-retardant and have been tested to meet mechanical/environmental conditions exceeding the requirements set for traditional datacom cables. When tested to specified “tray” application requirements, these cables have demonstrated superior performance levels for compressive loading, cyclic impact and chemical resistance. This ruggedized armored version offers additional mechanical protection and is also available in a gel-filled, cold temperature version. The 250 µm color-coded individual fibers offer quick and easy identification during installation, with 50 µm, 62.5 µm and single-mode versions available. A key benefit of the Corning industrial cables is the low-smoke/zero-halogen (LSZH) sheath.

Corning LSZH™ industrial cables provide life-safety benefits for industrial applications through the cables’ construction. Many traditional data communication cables contain halogens in the jacket compound, which pose little risk in the controlled and protected environment of typical building air spaces, such as behind walls, under floors and in conduit.

However, cables deployed in industrial applications, particularly on the plant floor, are typically exposed to greater risk of fire, extreme temperatures or chemical exposure. This often makes halogen cables inappropriate for industrial environments. When cables containing



Industrial Fiber Optic Cable, 48-Fibers
| Photo PIM0744



Industrial Fiber Optic Cable, 288-Fibers
| Photo PIM0751

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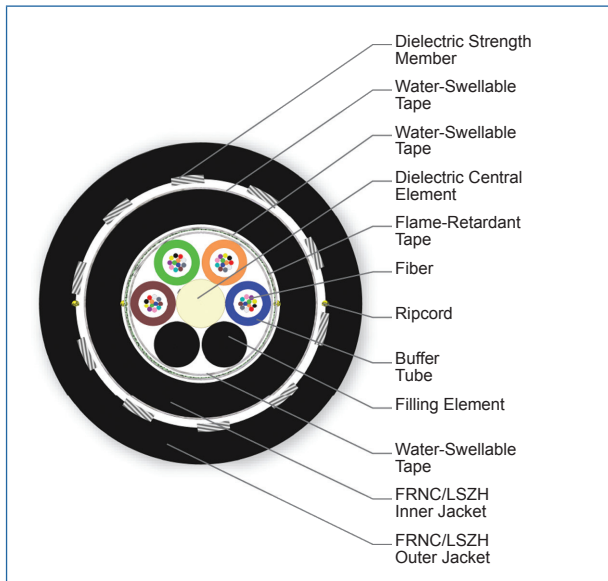
Standards

Approval and Listings National Electrical Code® (NEC®) OFCR-LS, CSA OFC FT4-ST1; Sunlight Resistant (SUN RES); IEEE-383/IEEE-1202 flame test; Suitable for Direct Burial (DIR BUR); IEC 60332-3, IEC 60754-2, IEC 61034

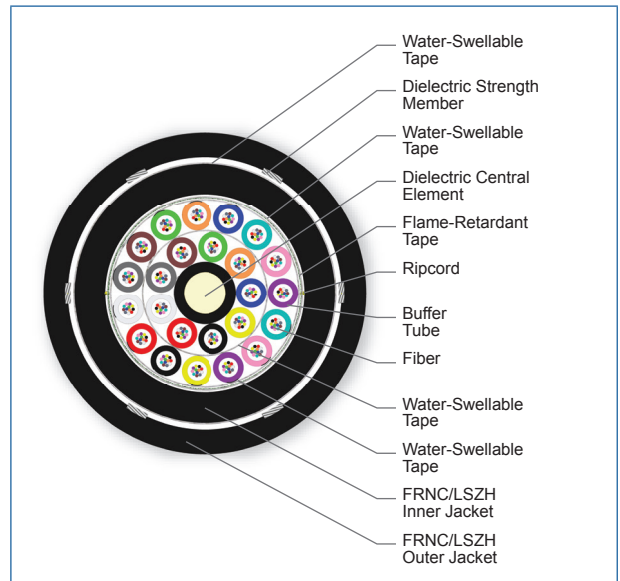
Common Installations Outdoor aerial and duct; indoor general purpose horizontal according to NEC Article 770

Design and Test Criteria ANSI/ICEA S-104-696; UL 13; UL 444; UL 1277; UL 1666; CSA C22.2 No. 230 and No. 232

halogens ignite, they emit highly reactive gases that can be harmful if inhaled. When halogens combine with water, acids are formed. These acids damage both living tissue and inorganic materials, such as metal and electronic equipment. Corning LSZH industrial cables eliminate these risks in the event of a fire in the industrial environment. In addition, the LSZH compound does not drip when superheated; the material burns to ash, eliminating the onset of secondary fires.



Industrial Fiber Optic Cable, 48-Fibers
| Photo PIM1643



Industrial Fiber Optic Cable, 288-Fibers
| Photo PIM1650

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Specifications

Temperature Range	
Storage	-50 °C to 75 °C (-58 °F to 167 °F)
Installation	-30 °C to 60 °C (-22 °F to 140 °F)
Operation	-50 °C to 75 °C (-58 °F to 167 °F)

* Note: Corning recommends storing indoor/outdoor cable in a proper temperature environment prior to installation to allow the cable temperature to meet installation temperature range specifications for best installation results.

Max. Tensile Strength, Short-Term	4500 N (1000 lbf)
Max. Tensile Strength, Long-Term	1500 N (333 lbf)

Mechanical Characteristics Cable						
Fiber Count	Buffer Tube Diameter	Nominal Outer Diameter	Min. Bend Radius Installation	Min. Bend Radius Operation	Weight	Product Type
12 - 72	2.5 mm (0.1 in)	17.6 mm (0.69 in)	264 mm (10.4 in)	176 mm (6.9 in)	299 kg/km (201 lb/1000 ft)	Dielectric
96	2.5 mm (0.1 in)	20.4 mm (0.8 in)	306 mm (12 in)	204 mm (8 in)	400 kg/km (269 lb/1000 ft)	Dielectric
144	2.5 mm (0.1 in)	24 mm (0.94 in)	360 mm (14.2 in)	240 mm (9.4 in)	529 kg/km (356 lb/1000 ft)	Dielectric
192 - 216	2.5 mm (0.1 in)	23.3 mm (0.92 in)	350 mm (13.8 in)	233 mm (9.2 in)	472 kg/km (317 lb/1000 ft)	Dielectric
288	2.5 mm (0.1 in)	26.3 mm (1.04 in)	395 mm (15.5 in)	263 mm (10.4 in)	602 kg/km (405 lb/1000 ft)	Dielectric

Chemical Characteristics	
RoHS	Free of hazardous substances according to RoHS 2002/95/EG

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Transmission Performance

Multimode					
Fiber Core Diameter (µm)	62.5	50	50	50	50
Fiber Category	OM1	OM2	OM3	OM4	OM4 Extended Distance
Fiber Code	K	T	T	T	T
Performance Option Code	30	31	80	90	91
Wavelengths (nm)	850/1300	850/1300	850/1300	850/1300	850/1300
Maximum Attenuation (dB/km)	3.4/1.0	3.0/1.0	3.0/1.0	3.0/1.0	3.0/1.0
Serial 1 Gigabit Ethernet (m)	300/550	750/500	1000/600	1100/600	1100/600
Serial 10 Gigabit Ethernet (m)	33/-	150/-	300/-	550/-	600/-
Min. Overfilled Launch (OFL) Bandwidth (MHz*km)	200/500	700/500	1500/500	3500/500	3500/500
Minimum Effective Modal Bandwidth (EMB) (MHz*km)	220/-	950/-	2000/-	4700/-	5350/-

* ITU-T G.652 D compliant.

* Meets 0.75 ns optical skew when used in all Corning Plug and Play™/Pretium EDGE® systems solutions.

* Assumes 1.0 dB maximum total connector/splice loss.

* Assumes 0.7 dB maximum total connector/splice loss.

Notes: 1) 50 µm multimode fiber macrobend loss ≤ 0.2 dB at 850 nm for two turns around 7.5 mm radius mandrel.

2) Improved attenuation and bandwidth options available.

3) Bend-insensitive single-mode fibers available on request.

4) Contact a Corning Customer Care Representative for additional information.

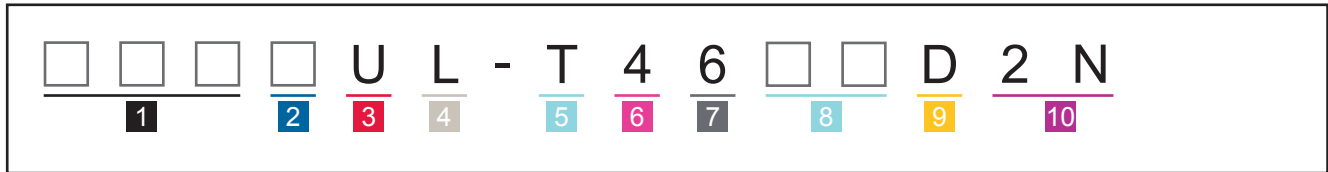
Single-mode		
Fiber Name	ClearCurve® XB**	SMF-28e+® fiber
Fiber Category	G.652.D/G.657.A1	G.652.D
Fiber Code	H	E
Performance Option Code	01	01
Wavelengths (nm)	1310/1383/1550	1310/1383/1550
Maximum Attenuation (dB/km)	0.4/0.4/0.3	0.4/0.4/0.3
Typical Attenuation* (dB/km)	0.35/0.35/0.20	0.33/0.33/0.19



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Ordering Information | Note: Contact Customer Care at 1-800-743-2675 for other options.



1 Select fiber count.
Standard offerings:
012 - 288
Increments of 12

2 Select fiber code.
K = 62.5 μm multimode (OM1)
T = 50 μm multimode (OM2)
E = Single-mode (OS2)
SMF-28e+®
H = ClearCurve® XB
Single-mode (OS2)

3 Defines cable type.
U = Gel-free loose tube

4 Defines outer jacket.
L = LSZH™ Double
Dielectric Cable

5 Defines fiber placement.
T = 12 fibers/buffer tube
(standard)

6 Defines length markings.
4 = Markings in ft
(standard)

7 Defines tensile strength.
6 = See Specifications

8 Select performance option code.
30 = 62.5 μm multimode (OM1)
31 = 50 μm multimode (OM2)
80 = 50 μm multimode (OM3)
01 = Single-mode (OS2)
(Max. attenuation 0.4/0.4/0.3 dB/km)

9 Defines cable type.
D = Gel-free loose tube

10 Defines special manufacturing code.
2N = Standard



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