LSZH™ Loose Tube, Gel-Free, Corrugated Armored Cable

Corning LSZH™ loose tube gel-free cables are flame-retardant, indoor/outdoor, suitable for installation in interbuilding and intrabuilding applications. The loose tube design offers mechanical ruggedness and environmental durability. The water-swellable yarn eliminates the need for gel-filling compound and allows more efficient and craft-friendly cable preparation. The 250 µm color-coded fibers allow quick and easy identification during installation.

Corning LSZH™ cables eliminate risks in the event of a fire as the LSZH compound does not drip when superheated. The material burns to ash, eliminating the onset of secondary fires. When cables containing 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. The flexible, flame-retardant outer jacket is UV-resistant and enables direct exposure to sunlight. Interlocking armor is available for special applications requiring additional mechanical durability.

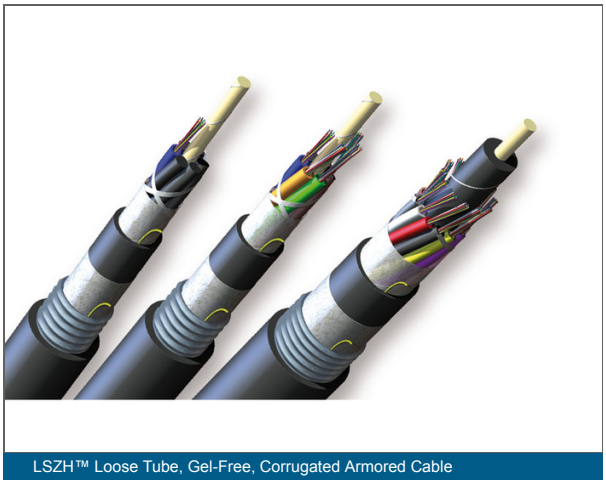
Features and Benefits

Low-smoke, zero-halogen sheath
Key life-safety benefit

Meets cyclic impact and chemical resistance test
Superior performance

Corrugated armor
Mechanical protection

Common installations
Outdoor aerial and duct



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Specifications

General Specifications	
Environment	Indoor/Outdoor
Product Type	Corrugated Steel Armor
Cable Type	Loose Tube
Flame Rating	LSZH (OFCR-LS)

Temperature Range	
Temperature Range, Storage	-40 °C - 70 °C (-40 °F - 158 °F)
Temperature Range, Installation	-30 °C - 60 °C (-22 °F - 140 °F)
Temperature Range, Operation	-40 °C - 70 °C (-40 °F - 158 °F)

Design Characteristics Cable

Fiber Count	Fibers per Tube	Number of Tube Positions	Number of Active Tubes	Buffer Tube Diameter
12 - 72	12	6	1 - 6	2.5 mm (0.1 in)
96	12	8	8	2.5 mm (0.1 in)
144	12	12	12	2.5 mm (0.1 in)
216	12	18	18	2.5 mm (0.1 in)
288	12	24	24	2.5 mm (0.1 in)

Mechanical Characteristics Cable

Fiber Count	Product Type	Nominal Outer Diameter	Min. Bend Radius Installation	Min. Bend Radius Operation	Max. Tensile Strength, Short-Term	Max. Tensile Strength, Long-Term	Cable Weight
12 - 72	Corrugated Steel Armor	14.8 mm	222 mm (8.74 in)	148 mm (5.83 in)	2700 N (606.98 lbf)	810 N (182.1 lbf)	238.89 kg/km (160.53 lb/1000 ft)

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Mechanical Characteristics Cable							
Fiber Count	Product Type	Nominal Outer Diameter	Min. Bend Radius Installation	Min. Bend Radius Operation	Max. Tensile Strength, Short-Term	Max. Tensile Strength, Long-Term	Cable Weight
96	Corrugated Steel Armor	16.5 mm	248 mm (9.76 in)	165 mm (6.5 in)	2700 N (606.98 lbf)	810 N (182.1 lbf)	287.75 kg/km (193.36 lb/1000 ft)
144	Corrugated Steel Armor	20.1 mm	302 mm (11.89 in)	201 mm (7.91 in)	2700 N (606.98 lbf)	810 N (182.1 lbf)	394.85 kg/km (265.33 lb/1000 ft)
216	Corrugated Steel Armor	20.3 mm	305 mm (12.01 in)	203 mm (7.99 in)	2700 N (606.98 lbf)	810 N (182.1 lbf)	381.4 kg/km (256.29 lb/1000 ft)
288	Corrugated Steel Armor	22.5 mm	338 mm (13.31 in)	225 mm (8.86 in)	2700 N (606.98 lbf)	810 N (182.1 lbf)	458.46 kg/km (308.07 lb/1000 ft)

Transmission Performance

Multimode					
Fiber Category	OM1	OM2	OM3	OM4	OM4 Extended Distance
Fiber Code	K	T	T	T	T
Performance Option Code	30	31	80	90	91
Fiber Core Diameter	62.5 µm	50 µm	50 µm	50 µm	50 µm
Wavelengths	850 nm / 1300 nm	850 nm / 1300 nm	850 nm / 1300 nm	850 nm / 1300 nm	850 nm / 1300 nm
Maximum Attenuation	3.4 dB/km / 1.0 dB/km	3.0 dB/km / 1.0 dB/km	3.0 dB/km / 1.0 dB/km	3.0 dB/km / 1.0 dB/km	3.0 dB/km / 1.0 dB/km
Serial 1 Gigabit Ethernet	300 m / 550 m	750 m / 600 m	1000 m / 600 m	1000 m / 600 m	1100 m / 600 m

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Multimode					
Serial 10 Gigabit Ethernet	33 m / -	150 m / -	300 m / -	550 m / -	600 m / -
Min. Overfilled Launch (OFL) Bandwidth	200 MHz*km / 500 MHz*km	700 MHz*km / 500 MHz*km	1500 MHz*km / - 500 MHz*km	3500 MHz*km / 500 MHz*km	
Minimum Effective Modal Bandwidth (EMB)	220 MHz*km / -	950 MHz*km / -	950 MHz*km / -	4700 MHz*km / -	5350 MHz*km / -

Transmission Performance

Single-mode		
Fiber Name	Bend-Improved Single-mode (OS2)	Single-mode (OS2) - Bend-Improved Single-mode (OS2)
Performance Option Code	20	01
Fiber Category	OS2	OS2
Wavelengths	1310 nm / 1383 nm / 1550 nm	1310 nm / 1383 nm / 1550 nm
Fiber Code	Z	E - Z
Maximum Attenuation	0.34 dB/km / 0.34 dB/km / 0.20 dB/km	0.4 dB/km / 0.4 dB/km / 0.3 dB/km

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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+®
Z = Single-mode (OS2) SMF-28® Ultra fiber

3 Defines cable type.
U = Loose tube

4 Defines outer jacket.
V = LSZH™ Corrugated Armored Cable

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

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

7 Defines tensile strength.
1 = 2700 N/600 lb (standard)

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 cable

10 Defines special manufacturing code.
20 = LSZH cable with corrugated armor

RoHS COMPLIANT

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