

### **Features and Benefits**

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

Meets cyclic impact and chemical resistance test Superior performance

#### **Common installations**

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

### **Standards**

Listings

National Electrical Code® (NEC®) OFN-LS, Sunlight Resistant (SUN RES); IEEE-383/IEEE-1202 flame test; IEC 60332-3, IEC 60754-2, IEC 61034, NFPA 130

Design and Test Criteria

ANSI/ICEA S-104-696; UL 13; UL 444; UL 1277; UL 1685; CSA C22.2 No. 230 and No. 232; CSA OFC (FT-4-S1) 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 while the all-dielectric cable construction requires no grounding or bonding. 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

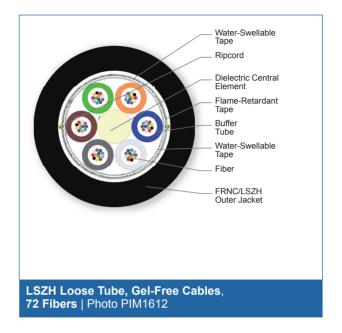
Note: This cable is available in 12 different jacket colors – blue, orange, green, brown, slate, white, red, black, yellow, violet, rose and aqua. The colored jacket allows for easy visual identification of the cables while still providing all of the required environmental protection of an indoor/outdoor cable jacket. Black is the standard jacket color using the part numbers shown here. Contact Customer Care at 1-800-743-2675 to order other color options.











## **Specifications**

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

<sup>\*</sup> 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.

Mechanical Characteristics Cable		
Max. Tensile Strength, Short-Term	2700 N (600 lbf)	
Max. Tensile Strength, Long-Term	810 N (180 lbf)	

Fiber Count	Buffer Tube Dia- meter	Nominal Outer Diameter	Min. Bend Radius Installation	Min. Bend Radius Operation	Weight
12 - 72	2.5 mm	12.8 mm	192 mm	128 mm	152 kg/km
	(0.1 in)	(0.50 in)	(7.6 in)	(5.0 in)	(102 lb/1000 ft)
96	2.5 mm	15.7 mm	235 mm	157 mm	231 kg/km
	(0.1 in)	(0.62 in)	(9.3 in)	(6.2 in)	(155 lb/1000 ft)
144	2.5 mm	19.3 mm	290 mm	193 mm	331 kg/km
	(0.1 in)	(0.76 in)	(11.4 in)	(7.6 in)	(222 lb/1000 ft)





Fiber Count	Buffer Tube Dia- meter	Nominal Outer Diameter	Min. Bend Radius Installation	Min. Bend Radius Operation	Weight
216	2.5 mm	18.6 mm	279 mm	186 mm	287 kg/km
	(0.1 in)	(0.73 in)	(11.0 in)	(7.3 in)	(193 lb/1000 ft)
288	2.5 mm	21.7 mm	326 mm	217 mm	401 kg/km
	(0.1 in)	(0.86 in)	(12.8 in)	(8.6 in)	(269 lb/1000 ft)

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

### **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	Т	Т	Т	Т
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/-

<sup>\*</sup> ITU-T G.652 D compliant.

- 2) Bend-insensitive single-mode fibers available on request.
- 3) 50 µm multimode fiber macrobend loss ≤ 0.2 dB at 850 nm for two turns around 7.5 mm radius mandrel.
- 4) Contact a Corning Customer Care Representative for additional information.



<sup>\*</sup> Meets 0.75 ns optical skew when used in all Corning Plug and Play™/EDGE™ systems solutions.

<sup>\*</sup> Assumes 1.0 dB maximum total connector/splice loss.

<sup>\*</sup> Assumes 0.7 dB maximum total connector/splice loss.

Notes: 1) Improved attenuation and bandwidth options available.



Single-mode			
Fiber Name	Single-mode (OS2)	SMF-28® Ultra fiber	
Fiber Category	G.652.D	G.657.A1	
Fiber Code	E	Z	
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)	-	0.33/0.33/0.19	

<sup>\*</sup> For more information on typical attenuation please see the Corning whitepaper at http://csmedia.corning.com/opcomm//Resource\_Documents/whitepapers\_rl/LAN-1863-AEN.pdf

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



- Select fiber count.
  Standard offerings:
  012 288
  Increments of 12
- 2 Select fiber code.
  - K = 62.5  $\mu$ m multimode (OM1) T = 50  $\mu$ m multimode,
  - (OM2/OM3/OM4) E = Single-mode (OS2)
  - SMF-28e+®
    Z = Single-mode (OS2)
    SMF-28® Ultra fiber
- 3 Defines cable type.
  U = Loose tube

- Defines outer jacket.
   Z = LSZH™ Single-Jacket
  - Cable
- 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.
  - $30 = 62.5 \mu m \text{ multimode (OM1)}$
  - $31 = 50 \mu m \text{ multimode (OM2)}$
  - $80 = 50 \mu m \text{ multimode (OM3)}$
  - $90 = 50 \mu m \text{ multimode (OM4)}$
  - 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 single-jacket cable



**Notes** 



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