

# LSZH™ Ribbon, Indoor, Gel-Free Cables

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## Features and Benefits

**Precise fiber and ribbon geometries**  
Excellent mass splicing yields

**Ribbon ID numbers and fiber colors**  
Easily identifiable

**Available with interlocking armor**  
Additional mechanical durability

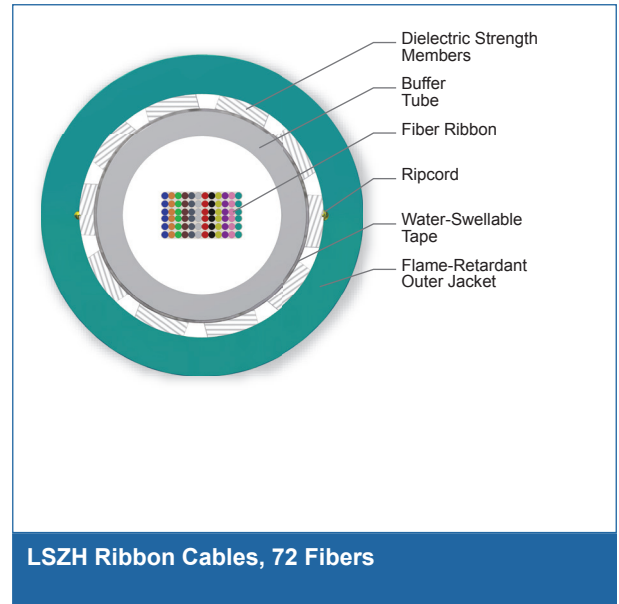
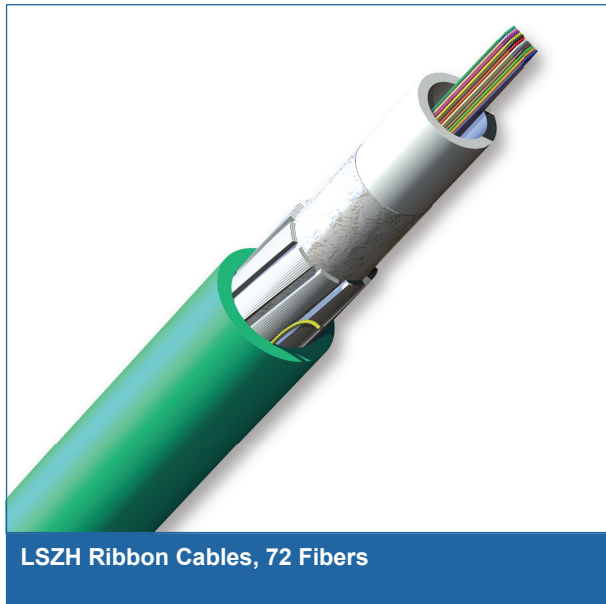
**Common installations**  
Indoor vertical riser and general purpose horizontal according to National Electrical Code® (NEC®) Article 770

## Standards

Listings	National Electrical Code® (NEC®) OFN-LS, IEEE 383 flame test, UL-1685
Design Criteria	CSA FT-4-ST1
Test Criteria	ANSI/ICEA S-83-596

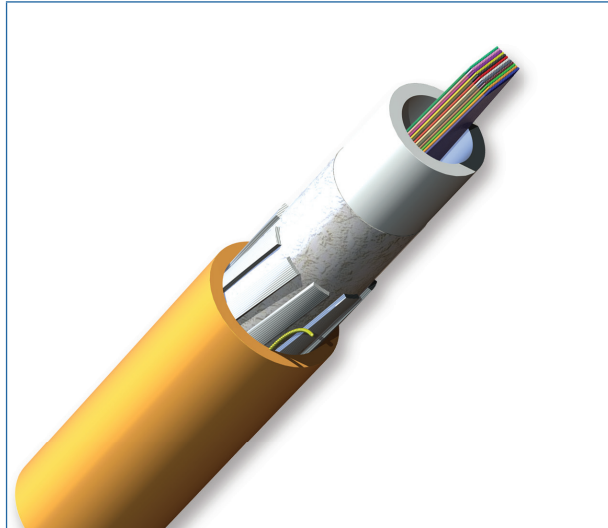
Corning LSZH™ ribbon cables are designed for horizontal intrabuilding backbones where limited-smoke and zero-halogen requirements exist. These cables are organized with 12-fiber ribbons inside a central tube that are surrounded by dielectric strength members and a specially formulated flame-retardant outer jacket. The 12-fiber ribbons have readily identifiable ribbon ID numbers and fiber colors that allow for easy access to individual fibers. The precise fiber and ribbon geometries result in excellent mass splicing yields. The ribbon riser cables are compatible with standard ribbon cable procedures and hardware.

The 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. The standard jacket color will be determined by the dominant fiber type in the cable and will use the standard part numbers shown here. Contact Customer Care at 1-800-743-2675 to order other color options.

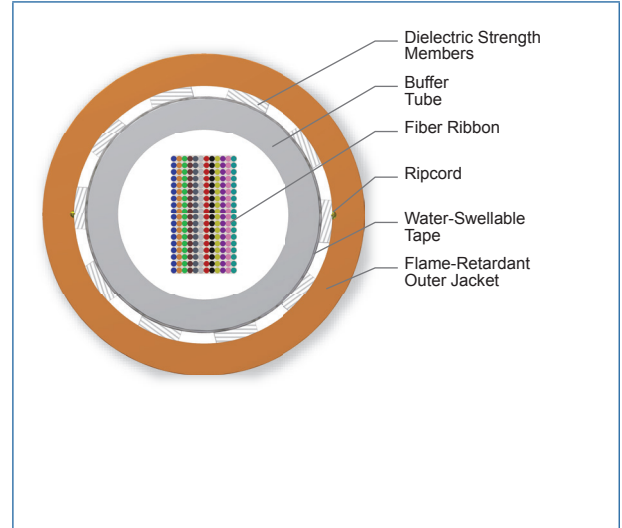


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LSZH Ribbon Cables, 216 Fibers



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## 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)

\* Note: Corning recommends storing 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	1320 N (300 lbf)
Max. Tensile Strength, Long-Term	400 N (90 lbf)

Fiber Count	Buffer Tube Diameter	Nominal Outer Diameter	Min. Bend Radius Installation	Max. Tensile Strength, Short-Term	Max. Tensile Strength, Long-Term	Weight	Min. Bend Radius Operation
12 - 36	8.1 mm (0.32 in)	9.7 mm (0.38 in)	146 mm (5.7 in)	1320 N (300 lbf)	400 N (90 lbf)	93.2 kg/km (62.5 lb/1000 ft)	97 mm (3.8 in)
48	5.80 mm (0.23 in)	9.7 mm (0.38 in)	146 mm (5.7 in)	1320 N (300 lbf)	400 N (90 lbf)	94.8 kg/km (63.7 lb/1000 ft)	97 mm (3.8 in)

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Fiber Count	Buffer Tube Diameter	Nominal Outer Diameter	Min. Bend Radius Installation	Max. Tensile Strength, Short-Term	Max. Tensile Strength, Long-Term	Weight	Min. Bend Radius Operation
72 - 96	8.1 mm (0.32 in)	12.4 mm (0.49 in)	186 mm (7.3 in)	1320 N (300 lbf)	400 N (90 lbf)	147.4 kg/km (98.9 lb/1000 ft)	124 mm (4.9 in)
144 - 216	11 mm (0.43 in)	15.2 mm (0.60 in)	228 mm (9.0 in)	1320 N (300 lbf)	400 N (90 lbf)	193.8 kg/km (130 lb/1000 ft)	152 mm (6.0 in)

## Chemical Characteristics

RoHS	Free of hazardous substances according to RoHS 2011/65/EU
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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/-

\* 50 µm multimode fiber (OM3/OM4) meets 0.75 ns optical skew when used in all Corning Plug & Play™/EDGE™ systems solutions.

\* 50 µm multimode fiber (OM4) T90 10 Gigabit Ethernet distance assumes 1.0 dB maximum total connector/splice loss.

\* 50 µm multimode fiber (OM4) T91 10 Gigabit Ethernet Distance assumes 0.7 dB maximum total connector/splice loss.

Notes: 1) Improved attenuation and bandwidth options available.

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.

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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

\* For more information on typical attenuation please see the Corning whitepaper at [http://csmedia.corning.com/opcomm//Resource\\_Documents/whitepapers\\_r/ LAN-1863-AEN.pdf](http://csmedia.corning.com/opcomm//Resource_Documents/whitepapers_r/ LAN-1863-AEN.pdf)

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

□	□	□	□	C	J	-	1	4	1	□	□	-	2	0
1	2	3	4	5	6	7	8	9	10					

**1** Select fiber count.  
Standard offerings:  
012 - 216  
Increments of 12

**2** Select fiber code.  
K = 62.5 μm multimode (OM1)  
T = 50 μm multimode (OM2, OM3, OM4)  
E = Single-mode (OS2) SMF-28e+®  
Z = Single-mode (OS2) SMF-28® ULTRA

**3** Defines cable type.  
C = Ribbon Cable

**4** Defines outer jacket.  
J = LSZH

**5** Defines fiber placement.  
1 = Standard

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

**7** Defines tensile strength.  
1 = 1320 N/297 lb (standard)

**8** Select performance option code.  
30 = 62.5 μm multimode (OM1)  
31 = 50 μm multimode (OM2)  
80 = 50 μm multimode (OM3)  
90 = 50 μm multimode (OM4)  
91 = 50 μm multimode (OM4+)  
01 = Single-mode (OS2)  
(Max. attenuation 0.4/0.4/0.3 dB/km)

**9** Defines cable type.  
- = Gel-free ribbon cable

**10** Defines special manufacturing code.  
20 = No special requirements

Note: Use with ribbon fan-out kits for direct connectorization application.

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## Notes



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