# Industrial LSZH™ Tray-Rated, Loose Tube, Gel-Free Cable

12 F, 62.5 μm multimode (OM1)

CORNING

Corning Industrial LSZH™ 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 industrial cables are flame-retardant and have been tested to meet mechanical/environmental conditions exceeding the requirements set for traditional datacom cables. The 250 µm color-coded individual fibers offer quick and easy identification during installation.

Corning Industrial LSZH™ 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.

Corning Industrial LSZH™ 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.

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. Corning industrial LSZH 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.

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.

# Part Number: 012KUZ-T4130D2N Water-Swellable Tape Ripcord Dielectric Central Element Water-Swellable Tape Buffer Tube Fiber Filling Element Flame-Retardant Tape ERNC/LSZH

Cross Section of Part Number: 012KUZ-T4130D2N

### Features and Benefits

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

Meets cyclic impact and chemical resistance test Superior performance



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### Features and Benefits

### **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; Suitable for Direct Burial (DIR BUR); IEC 60332-3, IEC 60754-2, IEC 61034; MSHA 30 CFR Part 7-K, Section 7.408

**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)

# **Specifications**

General Specifications	
Environment	Indoor/Outdoor Cables
Application	Aerial, Direct Buried, Duct, Tray Rated, (General Purpose Horizontal)
Cable Type	Loose Tube
Product Type	Dielectric
Flame Rating	LSZH™ (OFN-LS)
Fiber Category	62.5 µm MM (OM1)

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)



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Cable Design	
Central Element	Dielectric
Fiber Count	12
Fiber Coloring	Blue, Orange, Green, Brown, Slate, White, Red, Black, Yellow, Violet, Rose, Aqua
Fibers per Tube	12
Number of Tube Positions	6
Number of Active Tubes	1
Buffer Tube Color Coding	Blue
Buffer Tube Diameter	2.5 mm (0.1 in)
Number of Filling Elements	5
Tape	Water-swellable
Tape, Layer 2	Flame-retardant tape
Tape, Layer 3	Water-swellable
Number of Ripcords	2
Outer Jacket Material	Flame-retardant, non-corrosive/low-smoke, zero-halogen (FRNC/LSZH) material
Outer Jacket Color	Black

Mechanical Characteristics Cable	
Max. Tensile Strength, Short-Term	2700 N (600 lbf)
Max. Tensile Strength, Long-Term	810 N (180 lbf)
Weight	152 kg/km (102 lb/1000 ft)
Nominal Outer Diameter	12.8 mm (0.50 in)
Min. Bend Radius Installation	192 mm (7.6 in)
Min. Bend Radius Operation	128 mm (5.0 in)

<b>Chemical Characteristics</b>	
RoHS	Free of hazardous substances according to RoHS 2011/65/EU



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## **Fiber Specifications**

Optical Characteristics (cabled)		
Fiber Core Diameter	62.5 µm	
Fiber Category	OM1	
Fiber Code	K	
Performance Option Code	30	
Wavelengths	850 nm / 1300 nm	
Maximum Attenuation	3.4 dB/km / 1.0 dB/km	
Serial 1 Gigabit Ethernet	300 m / 550 m	
Serial 10 Gigabit Ethernet	33 m / -	
Min. Overfilled Launch (OFL) Bandwidth	200 MHz*km / 500 MHz*km	
Minimum Effective Modal Bandwidth (EMB)	220 MHz*km / -	

- Notes: 1) Improved attenuation and bandwidth options available.
  - 2) Bend-insensitive single-mode fibers available on request.
  - 3) Contact a Corning Customer Care Representative for additional information.

### **Ordering Information**

Part Number	012KUZ-T4130D2N
Product Description	Industrial LSZH™ Tray-Rated, Loose Tube, Gel-Free Cable, 12 F, 62.5 μm multimode (OM1)
EAN Code	4056418174075



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