Industrial LSZH[™] Tray-Rated, Loose Tube, Gel-Free, Interlocking Armored Cable

192 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 trayrated industrial cables are flame-retardant and have been tested to meet mechanical/ environmental conditions exceeding the requirements set for traditional datacom cables. They have also demonstrated superior performance levels when tested to specified "tray" application requirements for compressive loading, cyclic impact and chemical resistance. The 250 µm color-coded individual fibers offer quick and easy identification during installation.

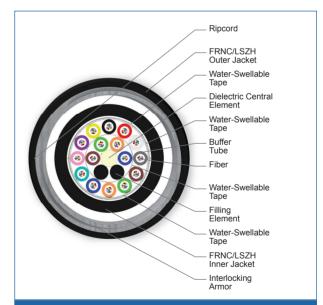
Corning Industrial LSZH[™] cables provide life-safety benefits for industrial applications through the cables' construction. Many traditional data communication cables contain halogens in the jacket compound, which pose little risk in the controlled and protected environment of typical building air spaces, 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. 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.

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.





Cross Section of Part Number: 192KUZ-T4130DAN



Industrial LSZH[™] Tray-Rated, Loose Tube, Gel-Free, Interlocking Armored Cable

192 F, 62.5 µm multimode (OM1)

Features and Benefits

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

Meets cyclic impact and chemical resistance test Superior performance

Interlocking armor Mechanical protection

Common installations

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

Standards

Listings	National Electrical Code® (NEC®) OFCR-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
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; 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	Interlocking armor
Flame Rating	LSZH™ (OFC-LS)
Fiber Category	62.5 µm MM (OM1)

CORNING

CORNING

Industrial LSZH[™] Tray-Rated, Loose Tube, Gel-Free, Interlocking Armored Cable

192 F, 62.5 µm multimode (OM1)

CORNING

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)

Central ElementDielectricFiber Count192Fiber ColoringBlue, Orange, Green, Brown, Slate, White, Red, Black, Yellow, Violet, Rose, AquaFibers per Tube12Number of Tube Positions18Number of Active TubesI6Buffer Tube Color Coding, Layer 1Blue, Orange, Green, BrownBuffer Tube Diameter2.5 mm (0.1 in)Number of Filing Elements2TapeVater-swellableBuffer Tube Color Coding, Layer 2Slate, White, Red, Black, Yellow, Violet, Rose, Aqua, Blue*, Orange*, Green*, Brown*Tape, Layer 3Flame-retardant tapeTape, Layer 4Vater-swellableInner Jacket MaterialInterlocking armonInner Jacket MaterialInterlocking armonOuter Jacket Material2Outer Jacket MaterialBirem-retardant, non-corrosive/low-smoke, zero-halogen (FRNC/LSZH) materialOuter Jacket ColorBlack	Cable Design	
Fiber ColoringBlue, Orange, Green, Brown, Slate, White, Red, Black, Yellow, Violet, Rose, AquaFibers per Tube12Number of Tube Positions18Number of Active Tubes16Buffer Tube Color Coding, Layer 1Blue, Orange, Green, BrownBuffer Tube Diameter2.5 mm (0.1 in)Number of Filling Elements2TapeWater-swellableBuffer Tube Color Coding, Layer 2Slate, White, Red, Black, Yellow, Violet, Rose, Aqua, Blue*, Orange*, Green*, Brown*Tape, Layer 2Water-swellableTape, Layer 3Flame-retardant tapeTape, Layer 4Water-swellableInner Jacket MaterialFlame-retardant, non-corrosive/low-smoke, zero-halogen (FRNC/LSZH) materialNumber of Ripcords2Outer Jacket MaterialFlame-retardant, non-corrosive/low-smoke, zero-halogen (FRNC/LSZH) material	Central Element	Dielectric
Hiber ColoringViolet, Rose, AquaFibers per Tube12Number of Tube Positions18Number of Active Tubes16Buffer Tube Color Coding, Layer 1Blue, Orange, Green, BrownBuffer Tube Diameter2.5 mm (0.1 in)Number of Filling Elements2TapeWater-swellableBuffer Tube Color Coding, Layer 2Slate, White, Red, Black, Yellow, Violet, Rose, Aqua, Blue*, Orange*, Green*, Brown*Tape, Layer 2Water-swellableTape, Layer 3Flame-retardant tapeTape, Layer 4Water-swellableInner Jacket MaterialFlame-retardant, non-corrosive/low-smoke, zero-halogen (FRNC/LSZH) materialNumber of Ripcords2Outer Jacket MaterialFlame-retardant, non-corrosive/low-smoke, zero-halogen (FRNC/LSZH) material	Fiber Count	192
Number of Tube Positions18Number of Active Tubes16Buffer Tube Color Coding, Layer 1Blue, Orange, Green, BrownBuffer Tube Diameter2.5 mm (0.1 in)Number of Filling Elements2TapeWater-swellableBuffer Tube Color Coding, Layer 2Slate, White, Red, Black, Yellow, Violet, Rose, Aqua, Blue*, Orange*, Green*, Brown*Tape, Layer 2Water-swellableTape, Layer 3Flame-retardant tapeTape, Layer 4Water-swellableInner Jacket MaterialFlame-retardant, non-corrosive/low-smoke, zero-halogen (FRNC/LSZH) materialNumber of Ripcords2Outer Jacket MaterialFlame-retardant, non-corrosive/low-smoke, zero-halogen (FRNC/LSZH) material	Fiber Coloring	Blue, Orange, Green, Brown, Slate, White, Red, Black, Yellow, Violet, Rose, Aqua
Number of Active Tubes16Buffer Tube Color Coding, Layer 1Blue, Orange, Green, BrownBuffer Tube Diameter2.5 mm (0.1 in)Number of Filling Elements2TapeWater-swellableBuffer Tube Color Coding, Layer 2Slate, White, Red, Black, Yellow, Violet, Rose, Aqua, Blue*, Orange*, Green*, Brown*Tape, Layer 2Water-swellableTape, Layer 3Flame-retardant tapeTape, Layer 4Water-swellableInner Jacket MaterialFlame-retardant, non-corrosive/low-smoke, zero-halogen (FRNC/LSZH) materialNumber of Ripcords2Outer Jacket MaterialFlame-retardant, non-corrosive/low-smoke, zero-halogen (FRNC/LSZH) material	Fibers per Tube	12
Builder Tube Color Coding, Layer 1Blue, Orange, Green, BrownBuffer Tube Diameter2.5 mm (0.1 in)Number of Filling Elements2TapeWater-swellableBuffer Tube Color Coding, Layer 2Slate, White, Red, Black, Yellow, Violet, Rose, Aqua, Blue*, Orange*, Green*, Brown*Tape, Layer 2Water-swellableTape, Layer 3Flame-retardant tapeTape, Layer 4Water-swellableInner Jacket MaterialFlame-retardant, non-corrosive/low-smoke, zero-halogen (FRNC/LSZH) materialNumber of Ripcords2Outer Jacket MaterialFlame-retardant, non-corrosive/low-smoke, zero-halogen (FRNC/LSZH) material	Number of Tube Positions	18
Buffer Tube Diameter2.5 mm (0.1 in)Number of Filling Elements2TapeWater-swellableBuffer Tube Color Coding, Layer 2Slate, White, Red, Black, Yellow, Violet, Rose, Aqua, Blue*, Orange*, Green*, Brown*Tape, Layer 2Water-swellableTape, Layer 3Flame-retardant tapeTape, Layer 4Water-swellableInner Jacket MaterialFlame-retardant, non-corrosive/low-smoke, zero-halogen (FRNC/LSZH) materialNumber of Ripcords2Outer Jacket MaterialFlame-retardant, non-corrosive/low-smoke, zero-halogen (FRNC/LSZH) material	Number of Active Tubes	16
Number of Filling Elements2TapeWater-swellableBuffer Tube Color Coding, Layer 2Slate, White, Red, Black, Yellow, Violet, Rose, Aqua, Blue*, Orange*, Green*, Brown*Tape, Layer 2Water-swellableTape, Layer 3Flame-retardant tapeTape, Layer 4Water-swellableInner Jacket MaterialFlame-retardant, non-corrosive/low-smoke, zero-halogen (FRNC/LSZH) materialTouber of Ripcords2Outer Jacket MaterialFlame-retardant, non-corrosive/low-smoke, zero-halogen (FRNC/LSZH) material	Buffer Tube Color Coding, Layer 1	Blue, Orange, Green, Brown
TapeWater-swellableBuffer Tube Color Coding, Layer 2Slate, White, Red, Black, Yellow, Violet, Rose, Aqua, Blue*, Orange*, Green*, Brown*Tape, Layer 2Water-swellableTape, Layer 3Flame-retardant tapeTape, Layer 4Water-swellableInner Jacket MaterialFlame-retardant, non-corrosive/low-smoke, zero-halogen (FRNC/LSZH) materialNumber of Ripcords2Outer Jacket MaterialFlame-retardant, non-corrosive/low-smoke, zero-halogen (FRNC/LSZH) material	Buffer Tube Diameter	2.5 mm (0.1 in)
Harder Ground HarderBuffer Tube Color Coding, Layer 2Slate, White, Red, Black, Yellow, Violet, Rose, Aqua, Blue*, Orange*, Green*, Brown*Tape, Layer 2Water-swellableTape, Layer 3Flame-retardant tapeTape, Layer 4Water-swellableInner Jacket MaterialFlame-retardant, non-corrosive/low-smoke, zero-halogen (FRNC/LSZH) materialTotel of Ripcords2Outer Jacket MaterialFlame-retardant, non-corrosive/low-smoke, zero-halogen (FRNC/LSZH) material	Number of Filling Elements	2
Burlet Tube Color Coding, Layer 2Orange*, Green*, Brown*Tape, Layer 2Water-swellableTape, Layer 3Flame-retardant tapeTape, Layer 4Water-swellableInner Jacket MaterialFlame-retardant, non-corrosive/low-smoke, zero-halogen (FRNC/LSZH) materialTensile Strength Elements and/or Armoring - Layer 1Interlocking armorNumber of Ripcords2Outer Jacket MaterialFlame-retardant, non-corrosive/low-smoke, zero-halogen (FRNC/LSZH) material	Таре	Water-swellable
Tape, Layer 3Flame-retardant tapeTape, Layer 4Water-swellableInner Jacket MaterialFlame-retardant, non-corrosive/low-smoke, zero-halogen (FRNC/LSZH) materialTensile Strength Elements and/or Armoring - Layer 1Interlocking armorNumber of Ripcords2Outer Jacket MaterialFlame-retardant, non-corrosive/low-smoke, zero-halogen (FRNC/LSZH) material	Buffer Tube Color Coding, Layer 2	
Tape, Layer 4Water-swellableInner Jacket MaterialFlame-retardant, non-corrosive/low-smoke, zero-halogen (FRNC/LSZH) materialTensile Strength Elements and/or Armoring - Layer 1Interlocking armorNumber of Ripcords2Outer Jacket MaterialFlame-retardant, non-corrosive/low-smoke, zero-halogen (FRNC/LSZH) material	Tape, Layer 2	Water-swellable
Inner Jacket MaterialFlame-retardant, non-corrosive/low-smoke, zero-halogen (FRNC/LSZH) materialTensile Strength Elements and/or Armoring - Layer 1Interlocking armorNumber of Ripcords2Outer Jacket MaterialFlame-retardant, non-corrosive/low-smoke, zero-halogen (FRNC/LSZH) material	Tape, Layer 3	Flame-retardant tape
Inner Jacket Material (FRNC/LSZH) material Tensile Strength Elements and/or Armoring - Layer 1 Interlocking armor Number of Ripcords 2 Outer Jacket Material Flame-retardant, non-corrosive/low-smoke, zero-halogen (FRNC/LSZH) material	Tape, Layer 4	Water-swellable
Number of Ripcords 2 Outer Jacket Material Flame-retardant, non-corrosive/low-smoke, zero-halogen (FRNC/LSZH) material	Inner Jacket Material	
Outer Jacket Material Flame-retardant, non-corrosive/low-smoke, zero-halogen (FRNC/LSZH) material	Tensile Strength Elements and/or Armoring - Layer 1	Interlocking armor
(FRNC/LSZH) material	Number of Ripcords	2
Outer Jacket Color Black	Outer Jacket 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	567 kg/km (381 lb/1000 ft)
Nominal Outer Diameter	28.3 mm (1.11 in)
Min. Bend Radius Installation	425 mm (16.7 in)
Min. Bend Radius Operation	283 mm (11.1 in)

CORNING

Industrial LSZH[™] Tray-Rated, Loose Tube, Gel-Free, Interlocking Armored Cable

192 F, 62.5 µm multimode (OM1)

CORNING

Chemical Characteristics

RoHS

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

Fiber Specifications

Optical Characteristics (cabled)	
Fiber Core Diameter	62.5 μm
Fiber Category	OM1
Fiber Code	К
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	192KUZ-T4130DAN
Product Description	Industrial LSZH™ Tray-Rated, Loose Tube, Gel-Free, Interlocking Armored Cable, 192 F, 62.5 µm multimode (OM1)
EAN Code	4056418166858



Corning Optical Communications LLC • PO Box 489 • Hickory, NC 28603-0489 USA 800-743-2675 • FAX: 828-325-5060 • International: +1-828-901-5000 • www.corning.com/opcomm A complete listing of the trademarks of Corning Optical Communications is available at www.corning.com/opcomm/trademarks. All other trademarks are the properties of their respective owners. Corning Optical Communications is ISO 9001 certified. © 2016 Corning Optical Communications. All rights reserved.

