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

144 F, 50 µm multimode, extended 10G distance (OM4+)

CORNING

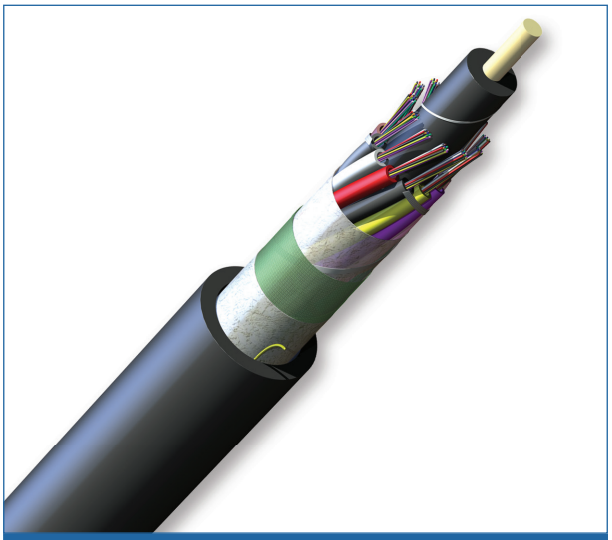
Corning Industrial LSZH™ fiber optic cables are designed for industrial building backbones and harsh environments atypical of traditional datacom systems. Based on proven stranded loose tube cable designs, these industrial cables are flame-retardant and have been tested to meet mechanical/environmental 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.

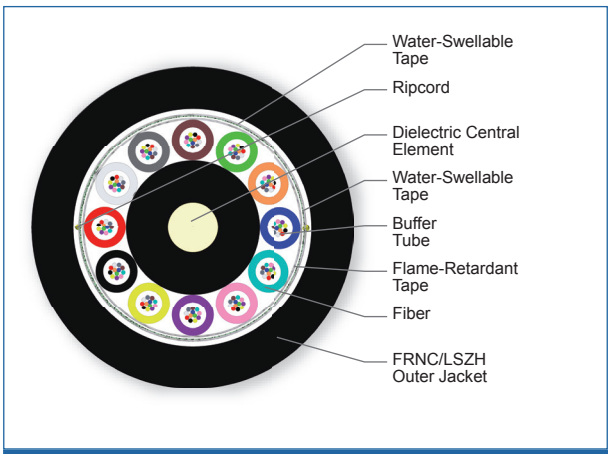
Corning Industrial LSZH™ cables eliminate these risks in the event of a fire in the industrial environment. In addition, the LSZH compound does not drip when superheated; the material burns to ash, eliminating the onset of secondary fires.

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: 144TUZ-T4191D2N



Cross Section of Part Number: 144TUZ-T4191D2N

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	50 µm MM (OM4+)

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	144
Fiber Coloring	Blue, Orange, Green, Brown, Slate, White, Red, Black, Yellow, Violet, Rose, Aqua
Fibers per Tube	12
Number of Tube Positions	12
Number of Active Tubes	12
Buffer Tube Color Coding	Blue, Orange, Green, Brown, Slate, White, Red, Black, Yellow, Violet, Rose, Aqua
Buffer Tube Diameter	2.5 mm (0.1 in)
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	331 kg/km (222 lb/1000 ft)
Nominal Outer Diameter	19.3 mm (0.76 in)
Min. Bend Radius Installation	290 mm (11.4 in)
Min. Bend Radius Operation	193 mm (7.6 in)

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

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Fiber Specifications

Optical Characteristics (cabled)	
Fiber Core Diameter	50 µm
Fiber Category	OM4 Extended Distance
Fiber Code	T
Performance Option Code	91
Wavelengths	850 nm / 1300 nm
Maximum Attenuation	3.0 dB/km / 1.0 dB/km
Serial 1 Gigabit Ethernet	1100 m / 600 m
Serial 10 Gigabit Ethernet	600 m / -
Min. Overfilled Launch (OFL) Bandwidth	3500 MHz*km / 500 MHz*km
Minimum Effective Modal Bandwidth (EMB)	5350 MHz*km / -

** Assumes 0.7 dB maximum total connector/splice loss.*
** Meets 0.75 ns optical skew when used in all Corning Plug and Play™/EDGE™ systems solutions.*

Notes: 1) *50 µm multimode fiber macrobend loss ≤ 0.2 dB at 850 nm for two turns around 7.5 mm radius mandrel.*
2) *Improved attenuation and bandwidth options available.*
3) *Bend-insensitive single-mode fibers available on request.*
4) *Contact a Corning Customer Care Representative for additional information.*

Ordering Information

Part Number	144TUZ-T4191D2N
Product Description	Industrial LSZH™ Tray-Rated, Loose Tube, Gel-Free Cable, 144 F, 50 µm multimode, extended 10G distance (OM4)
EAN Code	4056418141558

RoHS COMPLIANT

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