

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

288 F, 50 µm multimode (OM4)

CORNING

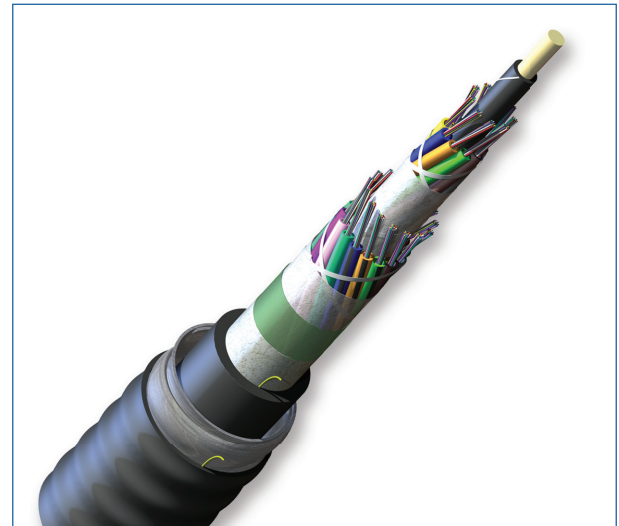
Corning Industrial LSZH™ fiber optic cables are designed for industrial building backbones and harsh environments atypical of traditional datacom systems. Based on proven stranded loose tube cable designs, these tray-rated industrial cables are flame-retardant and have been tested to meet mechanical/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

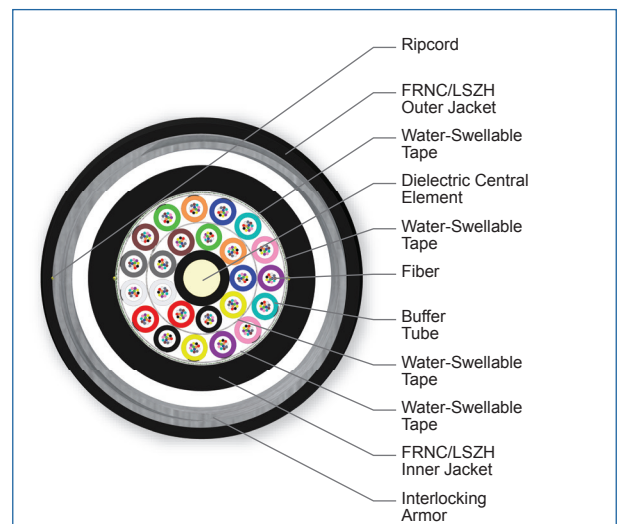
Corning Industrial LSZH™ cables eliminate these risks in the event of a fire in the industrial environment. In addition, the LSZH compound does not drip when superheated; the material burns to ash, eliminating the onset of secondary fires.

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*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: 288TUZ-T4190DAN



Cross Section of Part Number: 288TUZ-T4190DAN

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## 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         | 50 µm MM (OM4)  |

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## 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) |

## Cable Design

|   |  |
|---|--|
| Central Element                                     | Dielectric   |
| Fiber Count   | 288  |
| Fiber Coloring                                      | Blue, Orange, Green, Brown, Slate, White, Red, Black, Yellow, Violet, Rose, Aqua                                 |
| Fibers per Tube                                     | 12   |
| Number of Tube Positions                            | 24   |
| Number of Active Tubes                              | 24   |
| Buffer Tube Color Coding, Layer 1                   | Blue, Orange, Green, Brown, Slate, White, Red, Black, Yellow   |
| Buffer Tube Diameter                                | 2.5 mm (0.1 in)  |
| Tape  | Water-swellaable   |
| Buffer Tube Color Coding, Layer 2                   | Violet, Rose, Aqua, Blue*, Orange*, Green*, Brown*, Slate*, White*, Red*, Black*, Yellow*, Violet*, Rose*, Aqua* |
| Tape, Layer 2                                       | Water-swellaable   |
| Tape, Layer 3                                       | Flame-retardant tape   |
| Tape, Layer 4                                       | Water-swellaable   |
| Inner Jacket Material                               | Flame-retardant, non-corrosive/low-smoke, zero-halogen (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                                      |
| 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                            | 701 kg/km (471 lb/1000 ft) |
| Nominal Outer Diameter            | 30.8 mm (1.21 in)          |
| Min. Bend Radius Installation     | 462 mm (18.2 in)           |
| Min. Bend Radius Operation        | 308 mm (12.1 in)           |

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## Chemical Characteristics

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

## Fiber Specifications

### Optical Characteristics (cabled)

|   |                          |
|---|--------------------------|
| Fiber Core Diameter                     | 50 µm                    |
| Fiber Category                          | OM4                      |
| Fiber Code                              | T                        |
| Performance Option Code                 | 90                       |
| 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              | 550 m / -                |
| Min. Overfilled Launch (OFL) Bandwidth  | 3500 MHz*km / 500 MHz*km |
| Minimum Effective Modal Bandwidth (EMB) | 4700 MHz*km / -          |

\* Assumes 1.0 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         | 288TUZ-T4190DAN   |
| Product Description | Industrial LSZH™ Tray-Rated, Loose Tube, Gel-Free, Interlocking Armored Cable, 288 F, 50 µm multimode (OM4) |



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