

Industrial LSZH™ Tray-Rated, Loose Tube, Gel-Free, Interlocking Armored Cable 12 F, 50 µm multimode (OM3)

CORNING

Part Number:
012TUZ-T4180DAN

Corning industrial LSZH™ fiber optic cables are designed for industrial building backbones and harsh environments. Based on proven stranded loose tube cable designs, these tray-rated industrial cables are flame-retardant and tested to exceed the mechanical/environmental requirements 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 easy identification during installation.

LSZH cables often preferred for industrial applications, due to the safety benefits they provide. 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 a 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 – making halogen cables inappropriate. 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.

Features and Benefits

Low-smoke, zero-halogen sheath

Key life-safety benefit

Meets cyclic impact and chemical resistance test

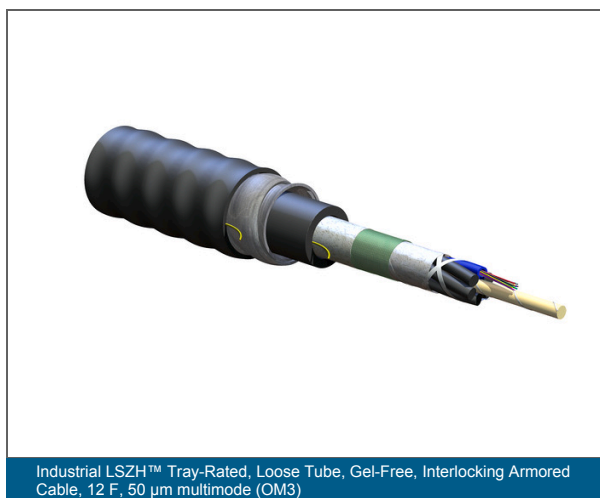
Superior performance

Interlocking armor

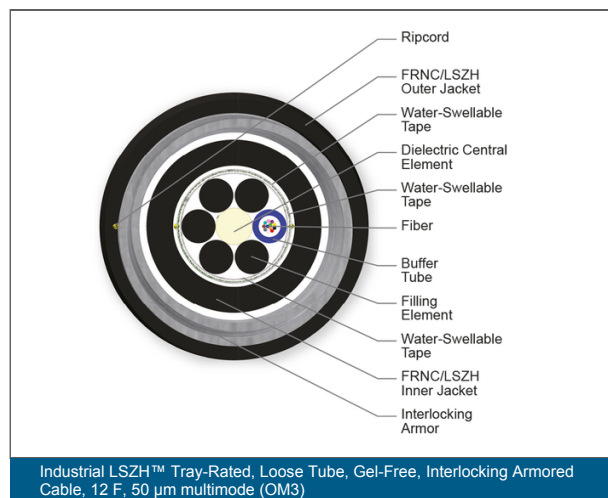
Mechanical protection

Common installations

Outdoor aerial and duct



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Specifications

General Specifications

Cable Type	Loose Tube
Environment	Indoor/Outdoor
Product Type	Interlocking Armor
Fiber Category	50 µm MM (OM3)
Flame Rating	LSZH (OFC-LS)
Application	Aerial, Direct Buried, Duct, Tray-Rated
Cable geometry	Round

Standards

RoHS	Free of hazardous substances according to RoHS 2011/65/EU
Approvals and Listings	NFPA 130, National Electrical Code® (NEC®) OFN-LS, Sunlight Resistant (SUN RES), IEEE-1202 flame test, Suitable for Direct Burial (DIR BUR), IEC 60332-3, IEC 60754-2, IEC 61034
Common Installations	Outdoor aerial and duct; indoor general purpose horizontal according to NEC Article 770
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)

Environmental Conditions

Temperature Range, Installation	-30 °C to 60 °C (-22 °F to 140 °F)
Temperature Range, Operation	-40 °C to 70 °C (-40 °F to 158 °F)
Temperature Range, Storage	-40 °C to 70 °C (-40 °F to 158 °F)

Cable Design

Central Element	Dielectric
Fiber Count	12
Number of Ripcords	2

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Cable Design

Outer Jacket Color	Black
Outer Jacket Material	Flame-retardant, non-corrosive/low-smoke, zero-halogen (FRNC/LSZH) material
Tensile Strength Elements and/or Armoring - Layer 1	Interlocking Armor
Buffer Tube Color	Blue
Buffer Tube Diameter	2.5 mm (0.1 in)
Inner Jacket Material	Flame-retardant
Number of Active Tubes	1
Number of Filling Elements	5
Number of Tube Positions	6
Tape	Water-swellaable
Tape, Layer 1	Water-swellaable
Tape, Layer 2	Flame-retardant tape
Tape, Layer 3	Water-swellaable
Fiber Coloring	Blue, Orange, Green, Brown, Slate, White, Red, Black, Yellow, Violet, Rose, Aqua
Fibers per Tube	12
Color Code Standards	Telcordia

Mechanical Specifications

Max. Tensile Strength, Long-Term	810 N (182.1 lbf)
Max. Tensile Strength, Short-Term	2700 N (606.98 lbf)
Min. Bend Radius Installation	325 mm (12.8 in)
Min. Bend Radius Operation	217 mm (8.54 in)
Nominal Outer Diameter	21.7 mm (0.85 in)

Optical Characteristics

Fiber Code	T
Fiber Name	50 µm MM (OM3)

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Optical Characteristics

Fiber Type	Multimode
Fiber Compliance	IEC 60793-2-10
Performance Option Code	80
Fiber Core Diameter	50 µm
Minimum Effective Modal Bandwidth (EMB)	950 MHz*km / -
Maximum Attenuation	3.0 dB/km / 1.0 dB/km
Min. Overfilled Launch (OFL) Bandwidth	1500 MHz*km / - 500 MHz*km
Serial 1 Gigabit Ethernet	1000 m / 600 m
Serial 10 Gigabit Ethernet	300 m / -
Wavelengths	850 nm / 1300 nm
Fiber Category	OM3

Dimensions

Cable Weight	349 kg/km (234.52 lb/1000 ft)
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