

Mining and Petrochemical Loose Tube, Gel-Free Cable

12 F, Single-mode (OS2)

CORNING

Corning Cable Systems Dielectric, Low-Temperature, Tray-Rated, Mining and Petrochemical Fiber Optic Cables are designed for indoor and outdoor use in mining and petrochemical backbones (aerial and duct) and horizontal intrabuilding and tunnel backbones where limited -smoke and zero-halogen requirements exist. The loose tube cable construction, pioneered by Corning Cable Systems, places fibers in buffer tubes and provides stable and highly reliable transmission parameters for a variety of voice, data, video and imaging applications. The SZ-stranded, loose tube design isolates fibers from installation and environmental rigors and allows for easy midspan access. The design also provides high-fiber density within a given cable diameter, allowing flexibility to suit many system designs.

The cable's innovative waterblocking technology eliminates the need for traditional flooding compound and allows more efficient and craft-friendly cable preparation. The specially formulated black, UV-resistant, flame-retardant LSZH inner and outer jacket complies with IEEE-383 flame test. These extra-tough double jackets resist hazards found in mines and petrochemical complexes, making this cable ideal for any harsh environment requiring a more robust cable and suitable for direct buried applications. All-dielectric construction provides tensile strength and eliminates grounding concerns. With an extended storage and operating temperature range of -50° to +75°C (-58° to +167°F), the cable is listed OFN-LS and CSA FT4-ST 1 for up to 288 fibers and cable tray-rated per CSA C22.2 No. 230 and No. 232.

This cable is available in 12 different jacket colors - blue, orange, green, brown, slate, white, red, black, yellow, purple, 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 standard part numbers shown here. Contact Customer Care at 1-800-743-2675 to order other color options.

Features and Benefits

Loose Tube construction

Stable and highly reliable transmission parameters

Waterblocking technology

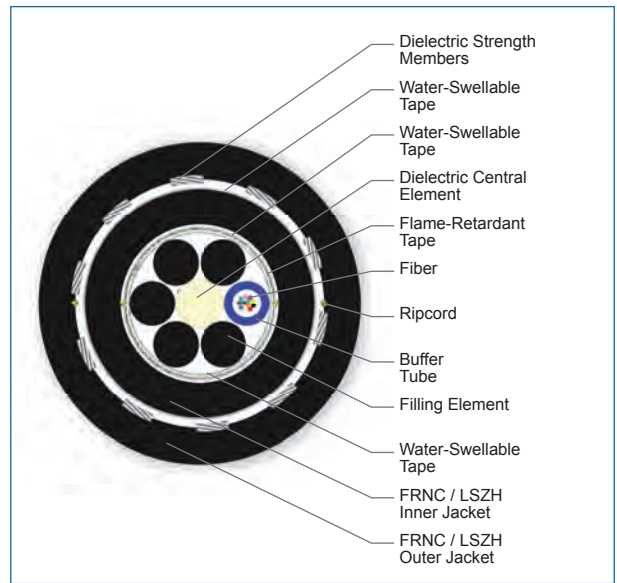
Allows efficient and craft-friendly cable preparation in outdoor or indoor/outdoor applications

Extra tough double jackets

Ideal for harsh environments



Part Number: 012EUL-T3601D2M



Cross Section of Part Number: 012EUL-T3601D2M

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Features and Benefits

Listed OFN-LS and CSA FT4-ST1, IEC 60332-3, IEC 61034 and IEC 60754-2

Meets burn test criteria

Listed MSHA 30 CFR Pt. 7-K

Mining Safety and Health Administration approved

Standards

Approval and Listings National Electrical Code® (NEC®) OFN-LS, CSA OFN FT4-ST1, IEEE 383 Flame Test, IEC 60332-3, IEC 60754-2, IEC 61034

Common Installations Outdoor aerial and duct; indoor general purpose horizontal according to CSA C22.2

Design and Test Criteria ANSI/ICEA S-104-696

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	Single-mode (OS2)

Temperature Range	
Storage	-50 °C to 75 °C (-58 °F to 167 °F)
Installation	-30 °C to 60 °C (-22 °F to 140 °F)
Operation	-50 °C to 75 °C (-58 °F to 167 °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-swellaable
Tape, Layer 2	Flame-retardant tape
Tape, Layer 3	Water-swellaable
Inner Jacket Material	Flame-retardant, non-corrosive / low-smoke, zero-halogen (FRNC / LSZH) material
Tape, Layer 4	Water-swellaable
Tensile Strength Elements and/or Armoring - Layer 1	Dielectric strength members
Number of Ripcords	4
Outer Jacket Material	Flame-retardant, non-corrosive / low-smoke, zero-halogen (FRNC / LSZH) material
Outer Jacket Color	Black

Mechanical Characteristics Cable	
Max. Tensile Strengths, Short-Term	4500 N (1000 lbf)
Max. Tensile Strengths, Long-Term	1500 N (333 lbf)
Compressive Loading	2400 N/cm (1370 lb/in)
Impact Resistance	11.8 N*m (8.7 lb*ft)
Weight	299 kg/km (201 lb/1000 ft)
Nominal Outer Diameter	17.6 mm (0.69 in)
Min. Bend Radius Installation	264 mm (10.4 in)
Min. Bend Radius Operation	176 mm (6.9 in)

Chemical Resistance		
Chemical	Exposure Time	Exposure Temperature
ASTM #2 Oil	4 h	158 °F
De-Icing Fluid	24 h	122 °F

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Chemical Resistance

Diesel Fuel, MIL-F 16884	24 h	95 °F
Hydraulic Fuel, MIL-H 5606	24 h	120 °F
Hydraulic Fuel, MIL-H 16762	24 h	120 °F
Lubricating Oil, MIL-L23699	24 h	120 °F
Vegetation Killer	168 h	122 °F

Chemical Characteristics

RoHS	Free of hazardous substances according to RoHS 2002/95/EG
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Fiber Specifications

Optical Characteristics (cabled)

Fiber Type	Single-mode
Fiber Core Diameter	8.2 µm
Fiber Category	OS2
Fiber Code	E
Performance Option Code	01
Wavelengths	1310 nm / 1383 nm / 1550 nm
Maximum Attenuation	0.4 dB/km / 0.4 dB/km / 0.3 dB/km
Serial 1 Gigabit Ethernet	5000 m / - / -
Serial 10 Gigabit Ethernet	10000 m / - / 40000 m

* ITU-T G.652 D compliant.

* Meets 0.75 ns optical skew when used in all Corning Cable Systems Plug & Play™/Pretium EDGE® Systems Solutions.

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

Ordering Information

Part Number	012EUL-T3601D2M
Product Description	Mining and Petrochemical Loose Tube, Gel-Free Cable, 12 F, Single-mode (OS2), length markings in meters

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Notes



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