144 F, Bend-improved Single-mode (OS2)



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.

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.



Features and Benefits

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

Meets cyclic impact and chemical resistance test Superior performance

Tray-rated per UL 13; UL 444; UL 1277; UL 1685; CSA C22.2 No. 230 and No. 232

Tested to industrial ruggedness standards

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

Meets burn test criteria

FRNC/LSZH Outer Jacket Corrugated Steel Armor Dielectric Central Element Fiber Ripcord Buffer Tube Water-Swellable Tape Water-Swellable Tape FRNC/LSZH Inner Jacket Cross Section of Part Number: 144EUZ-T4101D2N

Standards

Approval and Listings

National Electrical Code® (NEC®) OFN-LS; OFN FT4-ST1; Sunlight Resistant (SUN RES); IEEE-383/ IEEE-1202 flame test; Suitable for Direct Buried (DIR BUR); IEC 60332-3, IEC 60754-2, IEC 61034



144 F, Bend-improved Single-mode (OS2)



Standards

Common Installations Outdoor lashed aerial and

duct; indoor general purpose horizontal according to National Electrical Code® (NEC®) Article 770

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

13; US 444: UL 1685; UL 1277; CSA C22.2, No. 230

and No. 232

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	-40 °C to 75 °C (-40 °F to 167 °F)
Installation	-30 °C to 60 °C (-22 °F to 140 °F)
Operation	-40 °C to 75 °C (-40 °F to 167 °F)

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)



144 F, Bend-improved Single-mode (OS2)



Cable Design	
Таре	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	308 kg/km (207 lb/1000 ft)
Nominal Outer Diameter	18.9 mm (0.74 in)
Min. Bend Radius Installation	284 mm (11.2 in)
Min. Bend Radius Operation	189 mm (7.4 in)

Chemical Characteristics	
RoHS	Free of hazardous substances according to RoHS 2002/95/EG

Fiber Specifications

Optical Characteristics (cabled)	
Fiber Name	SMF-28e+® fiber
Fiber Category	G.652.D
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
Typical attenuation	0.33 dB/km / 0.33 dB/km / 0.19 dB/km

^{*} Typical attenuation values match the attenuation values listed in the optical fiber specifications. See www.corning.com/opticalfiber for Corning optical fiber specifications. Better attenuation performance options are available for some fiber and cable types. Contact Customer Care for additional fiber options.

* * SMF-28® Ultra and ClearCurve® XB fiber deliver up to 10x better macrobend loss performance compared to the G.652.D standard and up to 33 percent better macrobend loss performance than the G.657.A1 standard for 10mm radii bends.



144 F, Bend-improved Single-mode (OS2)



Ordering Information

Part Number	144EUZ-T4101D2N
Product Description	Industrial LSZH™ Tray-Rated, Loose Tube, Gel-Free, Corrugated Armored Cable, 144 F, Bend-improved Single-mode (OS2)



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. Corning Optical Communications is ISO 9001 certified. © 2014 Corning Optical Communications. All rights reserved.

