

FREEDM® Loose Tube Interlocking Armored Cables

CORNING

Features and Benefits

Flexible, interlocking armor design

Seven times crush protection compared to unarmored cables

Gel-free waterblocking technology

Craft-friendly cable preparation

Color-coded tubes and fibers

Quick and easy identification

UV-resistant, flame-retardant jacket

Rugged, durable and easy to strip

Standards

Approval and Listings	NEC® OFCR, CSA OFC FT-4
Common Installations	Outdoor aerial and duct; indoor vertical riser and general purpose horizontal according to NEC Article 770
Design and Test Criteria	ANSI/ICEA S-104-696

Corning Cable Systems FREEDM® Loose Tube Gel-Free Interlocking Armored Cables are flame-retardant, indoor/outdoor, riser-rated cables for interbuilding and intra-building backbones in aerial, duct and riser applications. Encased in a spirally wrapped, aluminum interlocking armor for ruggedness and superior crush resistance, these cables are ideal for industrial and heavy traffic areas and installations requiring extra protection for optical cables and for high-fiber-count trunking applications in areas with limited conduit or vault space. The riser rating precludes the need for a transition splice when entering the building.

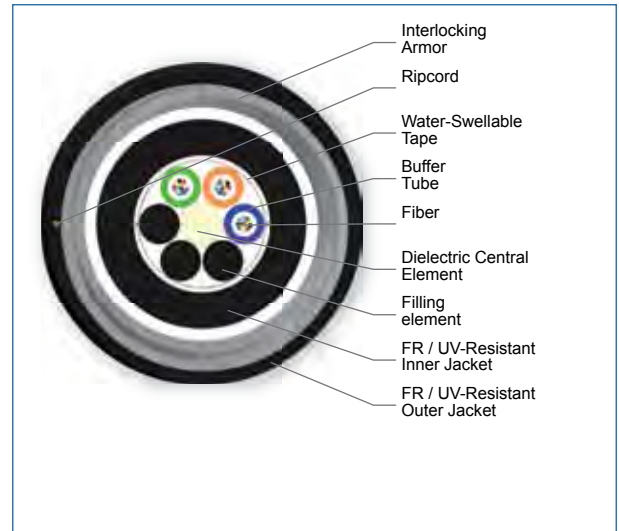
These cables are available in fiber counts up to 288 fibers and are protected against water penetration by innovative waterblocking materials. These materials swell to absorb water without the use of messy gels to provide more efficient and craft-friendly cable preparation, making cable access easier and simplifies the use of buffer tube fan-out kits.

The buffer tubes and fibers in each tube are color coded for quick, easy identification. The SZ-stranded, loose tube design isolates fibers from installation, environmental rigors and allows for easy midspan access. Available in 50 µm, 62.5 µm, single-mode and hybrid, the cable design is National Electrical Code® (NEC®) listed.

The armored design allows for easy one-step installation which reduces the overall installation costs. The UV-resistant, flame-retardant jacket is rugged and easy to strip.



FREEDM® Loose Tube Interlocking Armored Cables, 36-Fibers



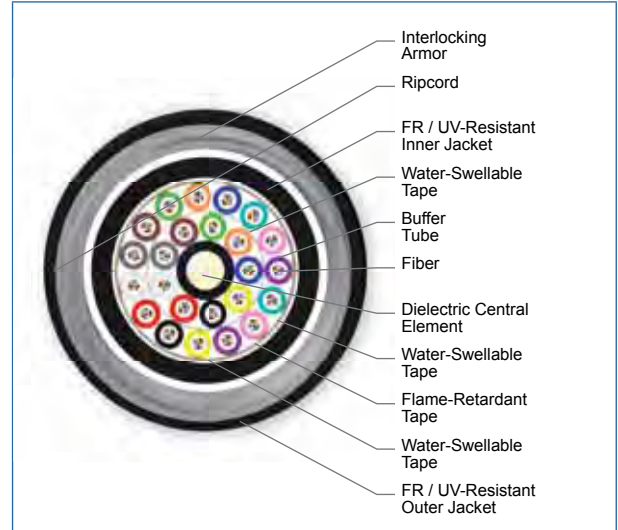
FREEDM® Loose Tube Interlocking Armored Cables, 36-Fibers

FREEDM[®] Loose Tube Interlocking Armored Cables

CORNING



FREEDM[®] Loose Tube Interlocking Armored Cables, 288-Fibers



FREEDM[®] Loose Tube Interlocking Armored Cables, 288-Fibers

Specifications

Temperature Range	
Storage	-40 °C to 70 °C (-40 °F to 158 °F)
Installation	-10 °C to 60 °C (14 °F to 140 °F)
Operation	-40 °C to 70 °C (-40 °F to 158 °F)

* Corning Cable Systems recommends storing indoor/outdoor cable in a proper temperature environment prior to installation to allow the cable temperature to meet installation temperature range specifications for best installation results.

Mechanical Characteristics Cable	
Max. Tensile Strengths, Short-Term	2700 N (600 lbf)
Max. Tensile Strengths, Long-Term	810 N (180 lbf)

Fiber Count	Number of Tube Positions	Number of Active Tubes	Weight	Nominal Outer Diameter	Min. Bend Radius Installation	Min. Bend Radius Operation
12 - 72	6	1 - 6	306 kg/km (206 lb/1000 ft)	19.9 mm (0.76 in)	299 mm (11.8 in)	199 mm (7.8 in)
96	8	8	367 kg/km (247 lb/1000 ft)	20.6 mm (0.81 in)	309 mm (12.2 in)	206 mm (8.1 in)
144	12	12	502 kg/km (337 lb/1000 ft)	25.5 mm (1 in)	383 mm (15.1 in)	255 mm (10 in)

CORNING

FREEDM® Loose Tube Interlocking Armored Cables

CORNING

Fiber Count	Number of Tube Positions	Number of Active Tubes	Weight	Nominal Outer Diameter	Min. Bend Radius Installation	Min. Bend Radius Operation
192 - 216	18	16 - 18	475 kg/km (319 lb/1000 ft)	25.5 mm (1 in)	383 mm (15.1 in)	255 mm (10 in)
240 - 288	24	22 - 24	562 kg/km (377 lb/1000 ft)	28.3 mm (1.11 in)	425 mm (16.7 in)	283 mm (11.1 in)

Chemical Characteristics

RoHS	Free of hazardous substances according to RoHS 2002/95/EG
------	-----------------------------------------------------------

Transmission Performance

Fiber Type	Multimode 62.5	Multimode 50	Multimode 50	Multimode 50	Multimode 50	Single-mode 8.2
Fiber Core Diameter (µm)						
Fiber Category	OM1	OM2	OM3	OM4	OM4 Extended Distance	OS2
Fiber Code	K	T	T	T	T	E
Performance Option Code	30	31	80	90	91	01
Wavelengths (nm)	850 / 1300	850 / 1300	850 / 1300	850 / 1300	850 / 1300	1310 / 1383 / 1550
Maximum Attenuation (dB/km)	3.4 / 1.0	3.0 / 1.0	3.0 / 1.0	3.0 / 1.0	3.0 / 1.0	0.4 / 0.4 / 0.3
Min. Overfilled Launch (OFL) Bandwidth (MHz*km)	200 / 500	700 / 500	1500 / 500	3500 / 500	3500 / 500	
Minimum Effective Modal Bandwidth (EMB) (MHz*km)	220 / -	950 / -	2000 / -	4700 / -	5350 / -	
Serial 1 Gigabit Ethernet (m)	300 / 550	750 / 600	1000 / 600	1100 / 600	1100 / 600	5000 / - / -
Serial 10 Gigabit Ethernet (m)	33 / -	150 / -	300 / -	550 / -	600 / -	10000 / - / 40000

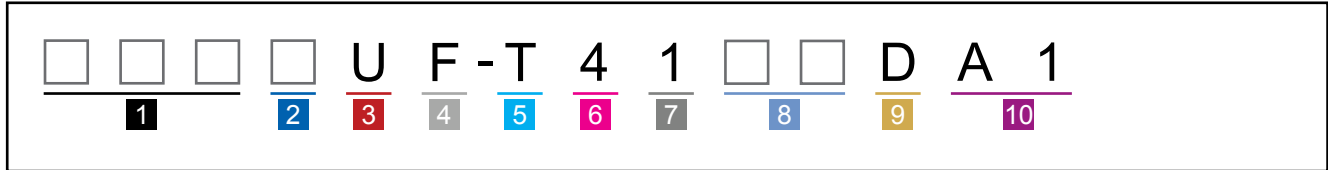
* Single-mode (OS2) fiber is ITU-T G.652.D compliant.

CORNING

FREEDM® Loose Tube Interlocking Armored Cables

CORNING

Ordering Information | Contact Customer Care at 1-800-743-2671 for other options.



1 Select fiber count.
Standard offerings:
012 - 288
Increments of 12

2 Select fiber code.
K = 62.5 µm multimode, OM1
T = 50 µm multimode, OM2, OM3, OM4, OM4+
E = Single-mode, OS2 SMF-28e®

3 Defines cable type.
U = FREEDM® Gel-Free Loose Tube Cable

4 Defines outer jacket.
F = Indoor/outdoor riser

5 Defines fiber placement.
T = 12 fibers/buffer tube (standard)

6 Defines length markings.
4 = Markings in feet (standard)

7 Defines tensile strength.
1 = See Specifications

8 Select performance option code.
30 = 62.5 µm multimode, OM1
31 = 50 µm multimode, OM2
80 = 50 µm multimode, OM3
90 = 50 µm multimode, OM4
91 = 50 µm multimode, OM4+
01 = Single-mode, OS2
(Max. attenuation 0.4/0.4/0.3 dB/km)

9 Defines cable type.
D = FREEDM® Gel-Free Loose Tube Cable

10 Defines special manufacturing code.
A1 = Interlocking armor with riser-rated outer jacket

This cable is available in 12 different jacket colors: blue, orange, green, brown, slate, white, red, black, yellow, violet, rose and aqua. Black is the standard jacket color using the part number configurator above. Contact Customer Care at 1-800-743-2675 to order other color options.



Corning Cable Systems LLC • PO Box 489 • Hickory, NC 28603-0489 USA

800-743-2675 • FAX: 828-325-5060 • International: +1-828-901-5000 • www.corning.com/cablesystems

A complete listing of the trademarks of Corning Cable Systems is available at www.corning.com/cablesystems/trademarks.

Corning Cable Systems is ISO 9001 certified. © 2012 Corning Cable Systems. All rights reserved.

CORNING