ALTOS® Figure-8 Gel-Filled Cables, Enhanced

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Features and Benefits

Figure-8 cable design
Easy, one-step installation

Innovative waterblocking design
Eliminates traditional flooding compound in cable core

Medium-density polyethylene jacket
Rugged, durable and easy to strip

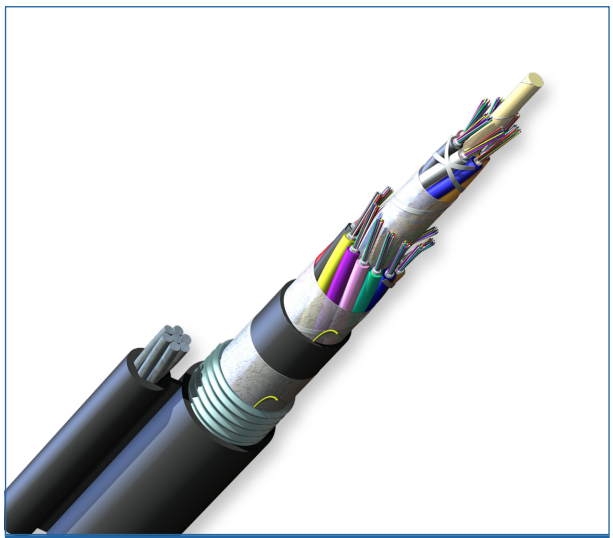
Available in 62.5 µm, 50 µm, single-mode and hybrid versions
Ready for any application including Gigabit Ethernet and 10 Gigabit Ethernet

Corning ALTOS® figure-8 gel-filled cables are self-supporting aerial cables designed for easy and economical one-step installation. The loose tube design provides stable performance over a wide temperature range and is compatible with any telecommunications-grade optical fiber.

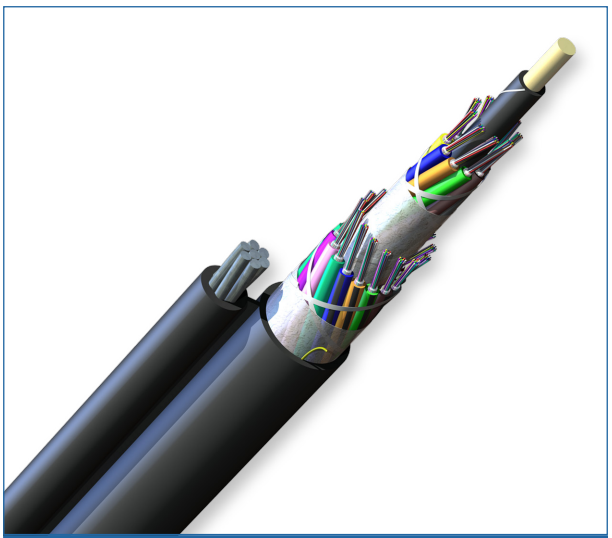
While the flexible, craft-friendly buffer tubes are easy to route in closures, the SZ-stranded, loose tube design isolates optical fibers from installation and environmental rigors and facilitates mid-span access. The figure-8 cable design allows easy, one-step installation using standard hardware and installation methods. These cables have a medium-density polyethylene jacket that is rugged, durable and easy to strip.

Standards

Common Installations	Outdoor self-supporting aerial
Design and Test Criteria	ANSI/ICEA S-87-640
Approval and Listings	RDUP 7 CFR 1755.900 (formerly RUS)



ALTOS Figure-8 Gel-Filled Armored Cable, 216 Fibers | Photo PIM1316



ALTOS Figure-8 Single-Jacket, Non-Armored Cable, 288 Fibers | Photo PIM1306

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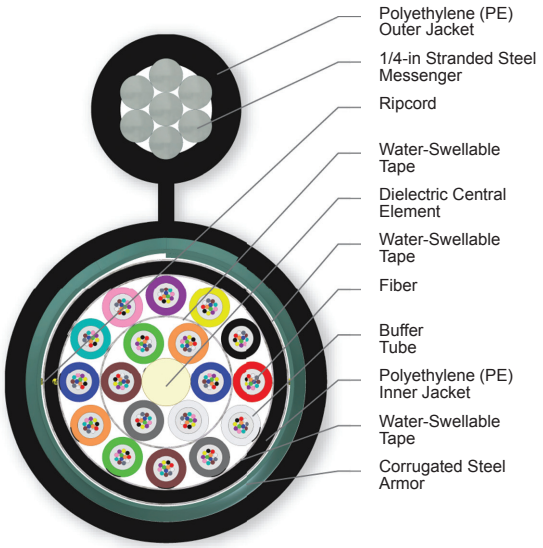
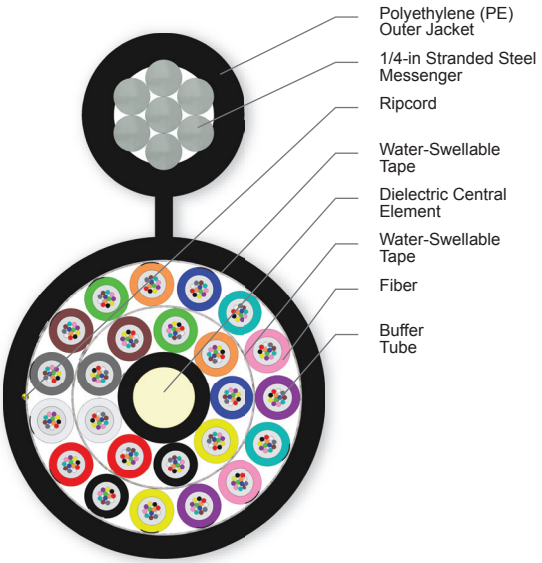


ALTOS Figure-8 Gel-Filled Armored Cable, 216 Fibers | Photo PIM2214



ALTOS Figure-8 Single-Jacket, Non-Armored Cable, 288 Fibers | Photo PIM2204

Specifications

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

Mechanical Characteristics Cable

Fiber Count	Number of Tube Positions	Number of Active Tubes	Weight	Nominal Outer Diameter	Nominal Cable Height	Min. Bend Radius Installation	Min. Bend Radius Operation
Figure-8 (Armored)							
12 - 72	6	1 - 6	403 kg/km (270 lb/1000 ft)	14.3 mm (0.56 in)	25.9 mm (1.02 in)	215 mm (8.4 in)	143 mm (5.6 in)
96	8	8	443 kg/km (297 lb/1000 ft)	16.0 mm (0.63 in)	27.6 mm (1.09 in)	240 mm (9.4 in)	160 mm (6.3 in)
144	12	12	542 kg/km (363 lb/1000 ft)	19.7 mm (0.78 in)	31.3 mm (1.23 in)	296 mm (11.6 in)	197 mm (7.8 in)
192 - 216	18	16 - 18	535 kg/km (359 lb/1000 ft)	19.9 mm (0.78 in)	31.5 mm (1.24 in)	299 mm (11.8 in)	199 mm (7.8 in)

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Mechanical Characteristics Cable

Fiber Count	Number of Tube Positions	Number of Active Tubes	Weight	Nominal Outer Diameter	Nominal Cable Height	Min. Bend Radius Installation	Min. Bend Radius Operation
Figure-8 (Non-Armored)							
12 - 72	6	1 - 6	304 kg/km (204 lb/1000 ft)	10.5 mm (0.41 in)	22.1 mm (0.87 in)	158 mm (6.2 in)	105 mm (4.1 in)
96	8	8	332 kg/km (223 lb/1000 ft)	12.2 mm (0.48 in)	23.8 mm (0.94 in)	183 mm (7.2 in)	122 mm (4.8 in)
144	12	12	401 kg/km (269 lb/1000 ft)	15.8 mm (0.62 in)	27.4 mm (1.08 in)	237 mm (9.3 in)	158 mm (6.2 in)
192 - 216	18	16 - 18	393 kg/km (264 lb/1000 ft)	16 mm (0.63 in)	27.6 mm (1.09 in)	240 mm (9.4 in)	160 mm (6.3 in)
288	24	24	450 kg/km (302 lb/1000 ft)	18.2 mm (0.72 in)	29.8 mm (1.17 in)	273 mm (10.7 in)	182 mm (7.2 in)

Number of Tube Positions	Maximum Span with 1% Installation Sag, NESC Light	Maximum Span with 1% Installation Sag, NESC Medium	Maximum Span with 1% Installation Sag, NESC Heavy
Figure-8 (Armored)			
6	189 m (620 ft)	189 m (620 ft)	140 m (460 ft)
8	189 m (620 ft)	189 m (610 ft)	131 m (430 ft)
12	171 m (560 ft)	162 m (530 ft)	116 m (380 ft)
18	162 m (530 ft)	158 m (520 ft)	116 m (380 ft)
Figure-8 (Non-Armored)			
6	241 m (790 ft)	235 m (770 ft)	168 m (550 ft)
8	241 m (790 ft)	229 m (750 ft)	158 m (520 ft)
12	216 m (710 ft)	201 m (660 ft)	140 m (460 ft)
18	207 m (680 ft)	198 m (650 ft)	137 m (450 ft)
24	183 m (600 ft)	183 m (600 ft)	137 m (450 ft)

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Transmission Performance

Multimode				
Fiber Core Diameter (µm)	62.5	50	50	50
Fiber Category	OM1	OM2	OM3	OM4
Fiber Code	K	T	T	T
Performance Option Code	30	31	80	90
Wavelengths (nm)	850/1300	850/1300	850/1300	850/1300
Maximum Attenuation (dB/km)	3.4/1.0	3.0/1.0	3.0/1.0	3.0/1.0
Serial 1 Gigabit Ethernet (m)	300/550	750/500	1000/600	1100/600
Serial 10 Gigabit Ethernet (m)	33/-	150/-	300/-	550/-
Min. Overfilled Launch (OFL) Bandwidth (MHz*km)	200/500	700/500	1500/500	3500/500
Minimum Effective Modal Bandwidth (EMB) (MHz*km)	220/-	950/-	2000/-	4700/-

Single-mode					
Fiber Name	SMF-28e+® fiber	SMF-28e+® fiber	SMF-28e+® LL	SMF-28® Ultra**	ClearCurve® XB**
Fiber Category	G.652.D	G.652.D	G.652.D	G.652.D/G.657.A1	G.652.D/G.657.A1
Fiber Code	E	E	L	Z	H
Performance Option Code	01	00	22	22	01
Wavelengths (nm)	1310/1383/1550	1310/1383/1550	1310/1383/1550	1310/1383/1550	1310/1383/1550
Maximum Attenuation (dB/km)	0.4/0.4/0.3	0.35/0.35/0.25	0.34/0.34/0.22	0.34/0.34/0.22	0.4/0.4/0.3
Typical Attenuation* (dB/km)	0.33/0.33/0.19	0.33/0.33/0.19	0.32/0.32/0.18	0.32/0.32/0.18	0.35/0.35/0.20

Fiber Name	LEAF®	SMF-28® ULL	
Fiber Category	G.655	G.652	
Fiber Code	F	P	
Performance Option Code	01	19	
Wavelengths (nm)	1310/1383/1550	1310/1383/1550	
Maximum Attenuation (dB/km)	-/-/0.25	0.33/-/0.19	
Typical Attenuation* (dB/km)	-/-/0.19	0.31/-/0.17	

** 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.*

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Ordering Information | *Note: Contact Customer Care at 1-800-743-2675 for other options.*

□	□	□	□	U	□	-	□	□	1	□	□	A	2	0
1			2	3	4		5	6	7	8		9	10	

1 Select fiber count.

Standard offerings:

012	048	096	216
024	060	144	288*
036	072	192	

**288-fibers only available in non-armored*

2 Select fiber code.

K = 62.5 µm multimode (OM1)
T = 50 µm multimode (OM2/OM3/OM4)
E = Single-mode (G.652.D) SMF-28e+®
L = Single-mode (G.652.D) SMF-28e+® LL
Z = Single-mode (G.652.D/ G.657.A1) SMF-28® Ultra
H = Single-mode (G.652.D/ G.657.A1) ClearCurve® XB
P = Single-mode (G.652) SMF-28® ULL
F = Single-mode (G.655) LEAF®

3 Defines cable type.

U = ALTOS® Loose Tube Cable with 2.5 mm buffer tubes

4 Select outer jacket.

A = Non-armored, Figure-8
B = Armored, Figure-8

5 Select fiber placement.

T = 12 fibers/buffer tube (standard)
6 = 6 fibers/buffer tube
See Note 1.

6 Select length markings.

3 = Markings in meters
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)
01 = Single-mode (OS2) (Max. attenuation 0.4/0.4/0.3 dB/km)
00 = Single-mode (OS2) (Max. attenuation 0.35/0.35/0.25 dB/km)
22 = Single-mode (OS2) (Max. attenuation 0.34/0.34/0.22 dB/km)
19 = Single-mode (Ultra Low-Loss) (Max. attenuation 0.33/–/0.19 dB/km)
01 = Single-mode NZDSF* (Max. attenuation –/–/0.25 dB/km)

**Non-Zero Disperson-Shifted Single-mode Fiber*

9 Defines cable type.

A = Gel-Filled Cable

10 Defines special requirements.

20 = No special requirements

1) Cable outer diameter may change. Example: 48 F cable with 6 fibers per tube will require 8 active buffer and have an OD like a standard 96 F cable.

RoHS COMPLIANT

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