SOLO® ADSS Medium-Span Cables, 12-144 Fibers

Features and Benefits

Loose tube design
Stable performance and compatibility with all common fiber types

Self-supporting
Easy, one-step installation

Track-resistant jacket available
Suitable for installations up to 25 kV electric field potential

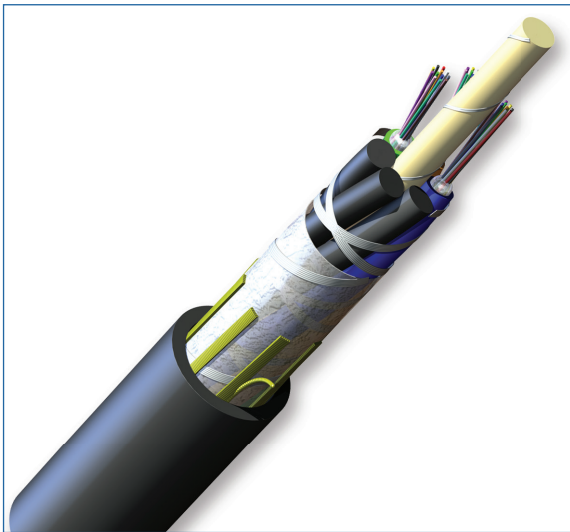
Innovative waterblocking cable core
Provides efficient and craft-friendly cable preparation

Standards

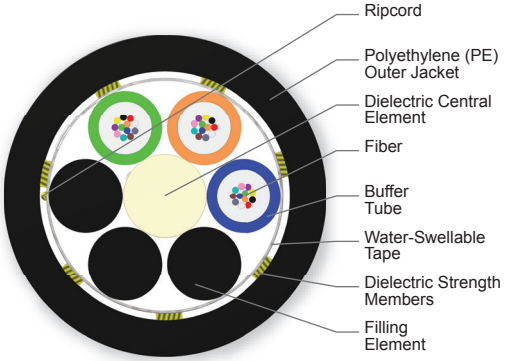
Approvals and Listings	RDUP 7 CFR 1755.900 (formerly RUS)
Common Installations	Outdoor self-supporting aerial
Design and Test Criteria	ANSI/ICEA S-87-640
Preformed Line Products® (PLP®) Dead-End Product	FIBERLIGN dead-end for ADSS medium tension dead-end

Corning SOLO® ADSS medium-span cables are all-dielectric, self-supporting (ADSS) cables designed for easy and economical one-step installation in campus backbones with self-supporting installations where metallic messengers cannot be used. The loose tube design provides stable performance over a wide temperature range and is compatible with any telecommunications-grade optical fiber. The economical single-jacket design can span distances of 800 ft in NESC light conditions, 650 ft in NESC medium conditions and 450 ft in NESC heavy conditions.

This cable incorporates innovative waterblocking materials, eliminating the need for traditional flooding compound and providing efficient and craft-friendly cable preparation. While the concentric, self-supporting cable design allows easy, one-step installation using standard hardware and installation methods, the SZ-stranded, loose tube design isolates optical fibers from installation and environmental rigors and facilitates mid-span access. The ADSS optical cables are also available with a proprietary track-resistant polyethylene (TRPE) jacket suitable for installation in electric field potentials up to 25 kV.

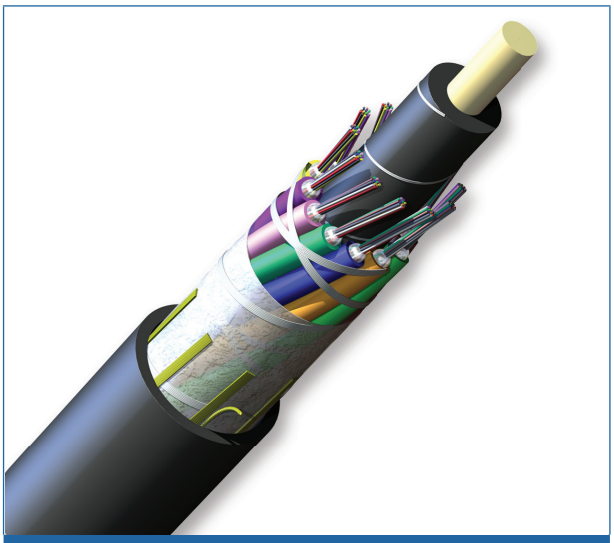


SOLO ADSS Medium-Span Cables, 36 Fibers | Photo PIM0645

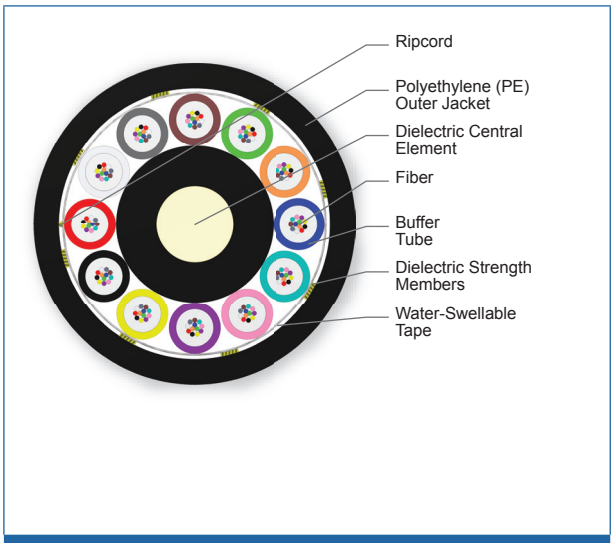


SOLO ADSS Medium-Span Cables, 36 Fibers | Photo PIM1544

SOLO® ADSS Medium-Span Cables, 12-144 Fibers



SOLO ADSS Medium-Span Cables, 144 Fibers | Photo PIM0650



SOLO ADSS Medium-Span Cables, 144 Fibers | Photo PIMtbd

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)

** Note: Corning recommends storing cable in a proper temperature environment prior to installation to allow the cable temperature to meet installation temperature range specifications for best installation results.*

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	97 kg/km (65 lb/1000 ft)	11.3 mm (0.45 in)	170 mm (6.7 in)	113 mm (4.5 in)
96	8	8	130 kg/km (87 lb/1000 ft)	13.1 mm (0.52 in)	197 mm (7.8 in)	131 mm (5.2 in)
144	12	12	201 kg/km (135 lb/1000 ft)	16.4 mm (0.65 in)	246 mm (9.8 in)	164 mm (6.5 in)

** Longer spans available on request.*

Chemical Characteristics	
RoHS	Free of hazardous substances according to RoHS 2011/65/EU

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Installation Conditions

ADSS Medium Span NESC Light Cable

NESC Light 700-1600 ft depending on the fiber count (see charts below)

12-72 Fibers

NESC Light				
Span (Feet)	Span (Meters)	1% Initial Installation SAG (Vertical) Tension	Vertical SAG (%)	Tension
1100	335	896 lbf (3985 N)	0.7	1410 lbf (6274 N)
1200	367	977 lbf (4347 N)	0.8	1514 lbf (6737 N)
1300	399	1059 lbf (4709 N)	0.8	1617 lbf (7194 N)
1400	431	1140 lbf (5072 N)	0.8	1719 lbf (7646 N)
1500	463	1222 lbf (5434 N)	0.8	1820 lbf (8094 N)

12-72 Fibers span
1100 ft (335 m) to 1500 ft (463 m)

73-96 Fibers

NESC Light				
Span (Feet)	Span (Meters)	1% Initial Installation SAG (Vertical) Tension	Vertical SAG (%)	Tension
1000	305	1091 lbf (4852 N)	0.8	1616 lbf (7189 N)
1100	335	1200 lbf (5337 N)	0.8	1750 lbf (7785 N)
1200	365	1309 lbf (5822 N)	0.8	1882 lbf (8373 N)
1300	395	1418 lbf (6307 N)	0.8	2013 lbf (8954 N)
1400	425	1527 lbf (6792 N)	0.8	2143 lbf (9530 N)
1500	455	1636 lbf (7278 N)	0.8	2271 lbf (10102 N)
1600	485	1745 lbf (7763 N)	0.8	2398 lbf (10668 N)

73-96 Fibers span
1000 ft (305 m) to 1600 ft (485 m)

97-144 Fibers

NESC Light				
Span (Feet)	Span (Meters)	1% Initial Installation SAG (Vertical) Tension	Vertical SAG (%)	Tension
700	213	**1181 lbf (5253 N)**	**0.8**	**1542 lbf (6857 N)**
750	229	**1265 lbf (5628 N)**	**0.9**	**1636 lbf (7279 N)**
800	245	**1350 lbf (6003 N)**	**0.9**	**1731 lbf (7699 N)**
850	261	**1434 lbf (6378 N)**	**0.9**	**1824 lbf (8116 N)**
900	277	**1518 lbf (6754 N)**	**0.9**	**1918 lbf (8530 N)**
950	293	**1603 lbf (7129 N)**	**0.9**	**2011 lbf (8943 N)**
1000	309	**1687 lbf (7504 N)**	**0.9**	**2103 lbf (9354 N)**

97-144 Fibers span
700 ft (213 m) to 1000 ft (309 m)

Note: Vertical component of total SAG, contact Corning Engineering Services if more information needed.

SOLO® ADSS Medium-Span Cables, 12-144 Fibers

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Installation Conditions

ADSS Medium Span NESC Medium Cable

NESC Medium 600-1250 ft depending on the fiber count (see charts below)

12-72 Fibers

NESC Medium				
Span (Feet)	Span (Meters)	1% Initial Installation SAG (Vertical) Tension	Vertical SAG (%)	Tension
800	244 m	652 lbf (2898 N)	3.0	1413 lbf (6285 N)
900	274 m	733 lbf (3260 N)	3.1	1548 lbf (6884 N)
1000	304 m	814 lbf (3623 N)	3.2	1679 lbf (7469 N)
1100	334 m	896 lbf (3985 N)	3.3	1808 lbf (8043 N)

12-72 Fibers span
800 ft (244 m) to 1100 ft (334 m)

73-96 Fibers

NESC Medium				
Span (Feet)	Span (Meters)	1% Initial Installation SAG (Vertical) Tension	Vertical SAG (%)	Tension
800	244	873 lbf (3881 N)	2.9	1672 lbf (7436 N)
950	289	1036 lbf (4609 N)	3	1915 lbf (8518 N)
1050	319	1145 lbf (5094 N)	3	2073 lbf (9222 N)
1150	349	1254 lbf (5579 N)	3.1	2228 lbf (9913 N)
1250	379	1363 lbf (6065 N)	3.2	2381 lbf (10593 N)

73-96 Fibers span
800 ft (244 m) to 1250 ft (379 m)

97-144 Fibers

NESC Medium				
Span (Feet)	Span (Meters)	1% Initial Installation SAG (Vertical) Tension	Vertical SAG (%)	Tension
600	183	1012 lbf (4502 N)	2.8	1571 lbf (6990 N)
650	198	1097 lbf (4878 N)	2.8	1678 lbf (7465 N)
700	213	1181 lbf (5253 N)	2.8	1784 lbf (7934 N)
750	228	1265 lbf (5628 N)	2.9	1888 lbf (8399 N)
800	243	1350 lbf (6003 N)	2.9	1992 lbf (8859 N)
850	258	1434 lbf (6378 N)	2.9	2094 lbf (9316 N)

97-144 Fibers span
600 ft (183 m) to 850 ft (258 m)

Note: Vertical component of total SAG, contact Corning Engineering Services if more information needed.

SOLO® ADSS Medium-Span Cables, 12-144 Fibers

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Installation Conditions

ADSS Medium Span NESC Heavy Cable

NESC Heavy 450-850 ft depending on the fiber count (see charts below)

12-72 Fibers	NESC Heavy				
	Span (Feet	Span (Meters)	1% Initial Installation	Vertical SAG (%)	Tension
	550	168 m	39 lbf (171 N)	4.2	1491 lbf (6631 N)
	600	183 m	77 lbf (343 N)	4.3	1590 lbf (7073 N)
	650	198 m	116 lbf (514 N)	4.4	1687 lbf (7506 N)
	700	213 m	154 lbf (685 N)	4.4	1783 lbf (7931 N)

12-72 Fibers span
550 ft (168 m) to 700 ft (213 m)

73-96 Fibers	NESC Heavy				
	Span (Feet	Span (Meters)	1% Initial Installation	Vertical SAG (%)	Tension
	550	168 m	600 lbf (2668 N)	3.9	1727 lbf (7680 N)
	600	183 m	654 lbf (2911 N)	4.0	1843 lbf (8200 N)
	650	198 m	709 lbf (3154 N)	4.0	1958 lbf (8709 N)
	700	213 m	763 lbf (3396 N)	4.1	2070 lbf (9209 N)
	750	228 m	818 lbf (3639 N)	4.2	2181 lbf (9701 N)
	800	243 m	873 lbf (3881 N)	4.3	2290 lbf (10185 N)
	850	258 m	927 lbf (4124 N)	4.3	2397 lbf (10663 N)

73-96 Fibers span
550 ft (168 m) to 850 ft (258 m)

97-144 Fibers	NESC Heavy				
	Span (Feet	Span (Meters)	1% Initial Installation	Vertical SAG (%)	Tension
	450	137 m	759 lbf (3377 N)	3.8	1649 lbf (7336 N)
	500	152 m	843 lbf (3752 N)	3.9	1789 lbf (7958 N)
	550	167 m	928 lbf (4127 N)	3.9	1926 lbf (8567 N)
	600	182 m	1012 lbf (4502 N)	4.0	2060 lbf (9164 N)

97-144 Fibers span
450 ft (137 m) to 600 ft (183 m)

Note: Vertical component of total SAG, contact Corning Engineering Services if more information needed.

Shipping Information

	Outer Diam. (XX)	Inner Width (YY)	Core Diam. (ZZ)	Outer Width	Total Drum Width	Net Weight	Cable Standard Length
Reel	IN	IN	IN	IN	IN	LB	MTR
WO66R	66	35.25	24.5	39.25	43.25	476	10,201

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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+® LL	SMF-28® Ultra fiber**	Single-mode (OS2)	Single-mode (OS2)	LEAF® fiber
Fiber Category	G.652.D	G.652.D/G.657.A1	G.652.D	G.652.D	G.655
Fiber Code	L	Z	E	E	F
Performance Option Code	22	22	00	01	01
Wavelengths (nm)	1310/1383/1550	1310/1383/1550	1310/1383/1550	1310/1383/1550	1310/1383/1550
Maximum Attenuation (dB/km)	0.34/0.34/0.22	0.34/0.34/0.22	0.35/0.35/0.25	0.4/0.4/0.3	-/-/0.25
Typical Attenuation* (dB/km)	0.32/0.32/0.18	0.32/0.32/0.18	-	-	-/-/0.19

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

** For more information on typical attenuation please see the Corning whitepaper at http://csmedia.corning.com/opcomm//Resource_Documents/whitepapers_rl/LAN-1863-AEN.pdf*

** * SMF-28® Ultra fiber delivers 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.*

□ □ □ □ N □ - T □ M □ □ A 2 0

1 2 3 4 5 6 7 8 9 10

1 Select fiber count.
Standard offerings: 012-144

2 Select fiber code.
K = 62.5 µm multimode (OM1)
T = 50 µm multimode (OM2/OM3/OM4)
E = Single-mode (G.652.D)
Z = Single-mode (G.652.D/G.657.A1) SMF-28® Ultra fiber
P = Single-mode (G.652) SMF-28® ULL
F = Single-mode (G.655) LEAF®

3 Defines cable type.
N = SOLO® single-jacket cable

4 Select outer jacket.
4 = PE jacket (standard)
A = TRPE jacket

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

6 Select length markings.
3 = Markings in meters
4 = Markings in feet (standard)

7 Defines tensile strength.
M = SOLO medium-span cable

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 manufacturing code.
20 = No special requirements

RoHS COMPLIANT

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