SOLO® ADSS Short-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

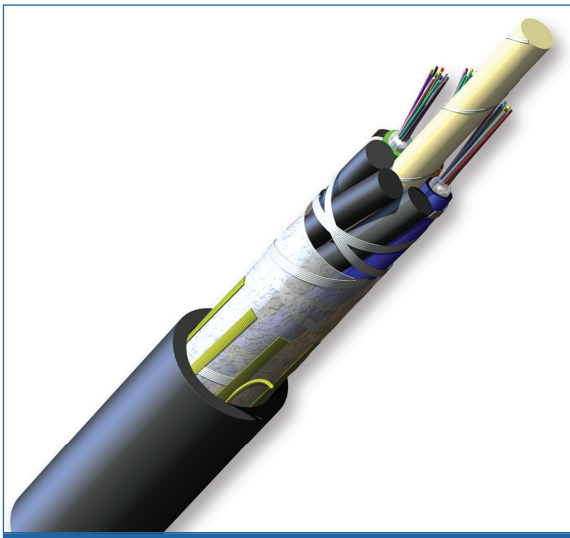
Innovative waterblocking cable core
Provides efficient and craft-friendly cable preparation

Standards

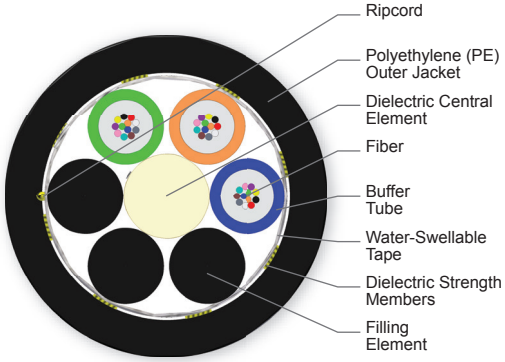
Approvals and Listings	RDUP 7 CFR 1755.900 (formerly RUS)
Common Installations	Outdoor self-supporting aerial
Design and Test Criteria	ANSI/ICEA S-87-640
Preformed Line Products® (PLP®) Dead-End Product	FIBERLIGN® dead-end for ADSS limited-tension de-ad-end

Corning SOLO® ADSS short-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 up to 600 ft in NESC light conditions, 500 ft in NESC medium conditions and 300 ft in NESC heavy conditions (see sag and tension chart for details).

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.

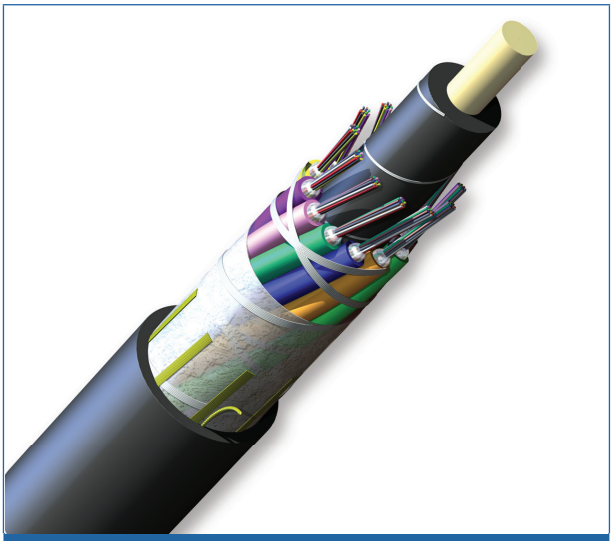


SOLO ADSS Short-Span Cables, 36 Fibers | Photo PIM0637

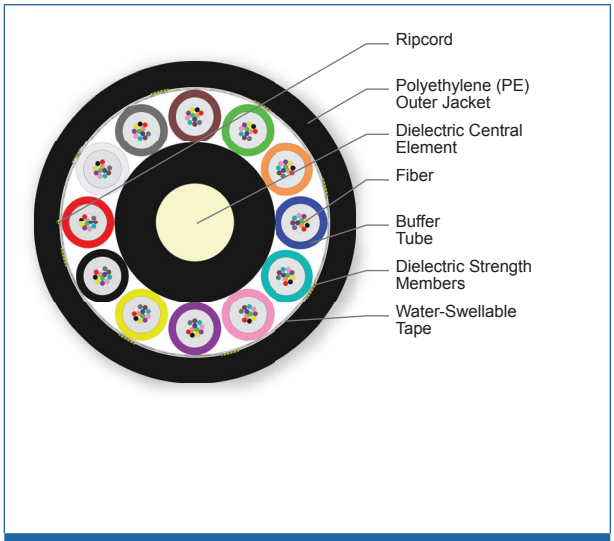


SOLO ADSS Short-Span Cables, 36 Fibers | Photo PIM1536

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



SOLO ADSS Short-Span Cables, 144 Fibers | Photo PIM0642



SOLO ADSS Short-Span Cables, 144 Fibers | Photo PIM1541

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	92 kg/km (62 lb/1000 ft)	10.9 mm (0.43 in)	164 mm (6.5 in)	109 mm (4.3 in)
96	8	8	122 kg/km (82 lb/1000 ft)	12.6 mm (0.50 in)	189 mm (7.5 in)	126 mm (5.0 in)
144	12	12	196 kg/km (132 lb/1000 ft)	16.1 mm (0.63 in)	242 mm (9.5 in)	161 mm (6.3 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 Short Span NESC Light Cable

NESC Light 50-1050 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
250	76	193 lbf (857 N)	0.6	392 lbf (1744 N)
450	137	347 lbf (1542 N)	0.6	624 lbf (2774 N)
650	198	501 lbf (2227 N)	0.7	836 lbf (3719 N)
850	259	655 lbf (2913 N)	0.7	1038 lbf (4615 N)
1050	320	809 lbf (3598 N)	0.8	1232 lbf (5479 N)

12-72 Fibers span
50 ft (15 m) to 1050 ft (320 m)

73-96 Fibers

NESC Light				
Span (Feet)	Span (Meters)	1% Initial Installation SAG (Vertical) Tension	Vertical SAG (%)	Tension
250	76	256 lbf (1138 N)	0.6	467 lbf (2076 N)
450	137	460 lbf (2048 N)	0.7	748 lbf (3325 N)
650	198	665 lbf (2958 N)	0.8	1008 lbf (4483 N)
850	259	869 lbf (3868 N)	0.8	1257 lbf (5590 N)
950	290	972 lbf (4323 N)	0.8	1378 lbf (6130 N)

73-96 Fibers span
50 ft (15 m) to 950 ft (290 m)

97-144 Fibers

NESC Light				
Span (Feet)	Span (Meters)	1% Initial Installation SAG (Vertical) Tension	Vertical SAG (%)	Tension
250	76	410 lbf (1823 N)	0.8	606 lbf (2694 N)
450	137	738 lbf (3282 N)	0.8	992 lbf (4411 N)
650	198	1066 lbf (4741 N)	0.9	1359 lbf (6044 N)

97-144 Fibers span
50 ft (15 m) to 650 ft (198 m)

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

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

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Installation Conditions

ADSS Short Span NESC Medium Cable

NESC Light 50-750 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
250	76	193 lbf (857 N)	2.5	527 lbf (2342 N)
450	137	347 lbf (1542 N)	2.9	821 lbf (3650 N)
650	198	501 lbf (2227 N)	3.2	1086 lbf (4829 N)
750	229	578 lbf (2570 N)	3.3	1211 lbf (5388 N)

12-72 Fibers span
50 ft (15 m) to 750 ft (229 m)

73-96 Fibers

NESC Medium				
Span (Feet)	Span (Meters)	1% Initial Installation SAG (Vertical) Tension	Vertical SAG (%)	Tension
250	76	256 lbf (1138 N)	2.4	597 lbf (2656 N)
450	137	460 lbf (2048 N)	2.8	937 lbf (4167 N)
650	198	665 lbf (2958 N)	3.0	1246 lbf (5541 N)
750	229	767 lbf (3413 N)	3.1	1393 lbf (6197 N)

73-96 Fibers span
50 ft (15 m) to 750 ft (229 m)

97-144 Fibers

NESC Medium				
Span (Feet)	Span (Meters)	1% Initial Installation SAG (Vertical) Tension	Vertical SAG (%)	Tension
250	76	410 lbf (1823 N)	2.5	717 lbf (3190 N)
350	107	574 lbf (2553 N)	2.6	938 lbf (4173 N)
450	137	738 lbf (3282 N)	2.8	1149 lbf (5110 N)
550	168	902 lbf (4011 N)	2.9	1353 lbf (6017 N)

97-144 Fibers span
50 ft (15 m) to 550 ft (168 m)

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

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

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Installation Conditions

ADSS Short Span NESC Heavy Cable

NESC Heavy 50-500 ft depending on the fiber count (see charts below)

12-72 Fibers

NESC Heavy				
Span (Feet)	Span (Meters)	1% Initial Installation SAG (Vertical) Tension	Vertical SAG (%)	Tension
250	76	193 lbf (857 N)	3.7	748 lbf (3326 N)
450	137	347 lbf (1542 N)	4.4	1149 lbf (5111 N)
500	152	385 lbf (1713 N)	4.5	1242 lbf (5523 N)

12-72 Fibers span
50 ft (15 m) to 500 ft (76 m)

73-96 Fibers

NESC Heavy				
Span (Feet)	Span (Meters)	1% Initial Installation SAG (Vertical) Tension	Vertical SAG (%)	Tension
250	76	256 lbf (1138 N)	3.6	831 lbf (3697 N)
450	137	460 lbf (2048 N)	4.2	1283 lbf (5706 N)
500	152	511 lbf (2275 N)	4.3	1387 lbf (6170 N)

73-96 Fibers span
50 ft (15 m) to 500 ft (76 m)

97-144 Fibers

NESC Heavy				
Span (Feet)	Span (Meters)	1% Initial Installation SAG (Vertical) Tension	Vertical SAG (%)	Tension
250	76	410 lbf (1823 N)	3.6	954 lbf (4244 N)
350	107	574 lbf (2553 N)	3.9	1232 lbf (5481 N)
400	122	656 lbf (2917 N)	4.0	1365 lbf (6070 N)

97-144 Fibers span
50 ft (15 m) to 400 ft (122 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.*

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

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

□ □ □ □ N □ - T □ S □ □ 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
See Note 1.

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 ft (standard)

7 Defines tensile strength.
S = SOLO short-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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