

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

CORNING

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

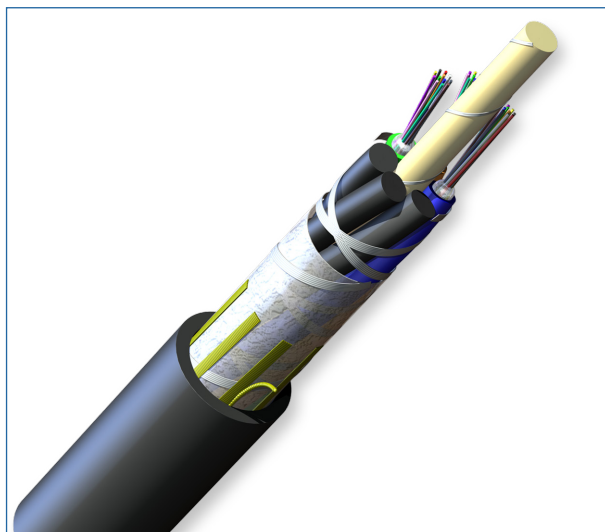
Provides efficient and craft-friendly cable preparation

Standards

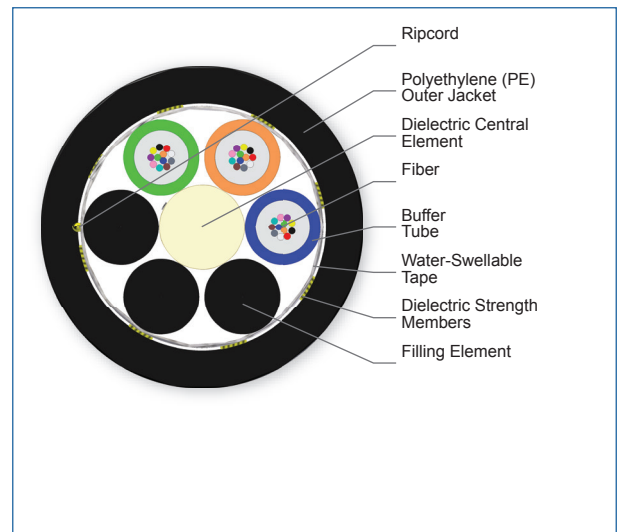
Approval and Listings	RDUP 7 CFR 1755.900 (formerly RUS)
Common Installations	Outdoor self-supporting aerial
Design and Test Criteria	ANSI/ICEA S-87-640
Preformed Line Products® (PLP®) Dead-End Product	FIBERLIGN® dead-end for ADSS limited-tension dead-end

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

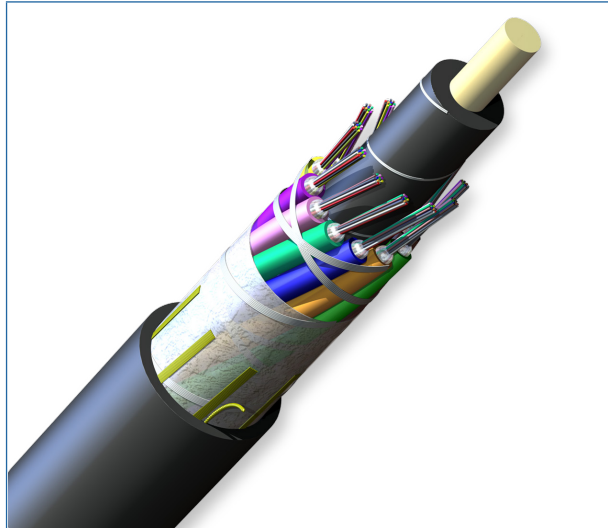


SOLO ADSS Short-Span Cables, 36 Fibers
| Photo PIM1536

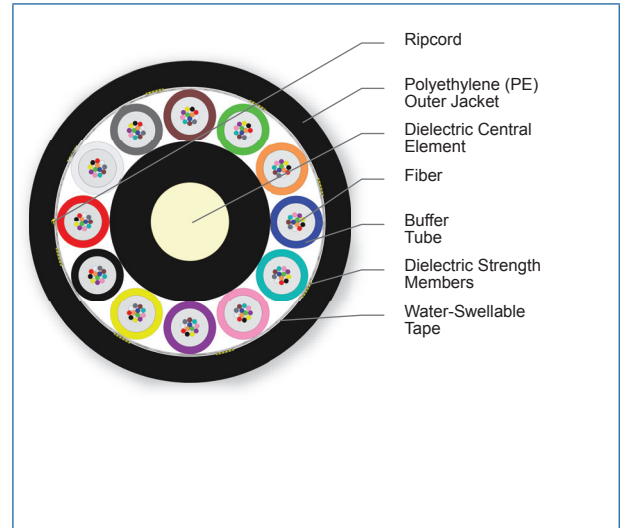
CORNING

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

CORNING



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.

Mechanical Characteristics Cable

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.

CORNING

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

CORNING

Chemical Characteristics

RoHS

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

Installation Conditions

Span	Initial Installation		NESC Light		NESC Medium		NESC Heavy	
	SAG	Tension	SAG	Tension	SAG	Tension	SAG	Tension
15 m (50 ft)	1.0 %	174 N (39 lbf)	0.4 %	488 N (110 lbf)	1.7 %	694 N (156 lbf)	2.4 %	1028 N (231 lbf)
30 m (100 ft)	1.0 %	348 N (78 lbf)	0.5 %	852 N (191 lbf)	2.0 %	1179 N (265 lbf)	2.9 %	1711 N (385 lbf)
46 m (150 ft)	1.0 %	522 N (117 lbf)	0.5 %	1173 N (264 lbf)	2.2 %	1602 N (360 lbf)	3.2 %	2300 N (517 lbf)
61 m (200 ft)	1.0 %	696 N (156 lbf)	0.5 %	1472 N (331 lbf)	2.3 %	1989 N (447 lbf)	3.5 %	2836 N (637 lbf)
76 m (250 ft)	1.0 %	870 N (195 lbf)	0.6 %	1754 N (394 lbf)	2.5 %	2353 N (529 lbf)	3.7 %	3336 N (750 lbf)
91 m (300 ft)	1.0 %	1043 N (235 lbf)	0.6 %	2025 N (455 lbf)	2.6 %	2699 N (607 lbf)	3.9 %	3810 N (857 lbf)
107 m (350 ft)	1.0 %	1217 N (274 lbf)	0.6 %	2287 N (514 lbf)	2.7 %	3032 N (682 lbf)		
122 m (400 ft)	1.0 %	1391 N (313 lbf)	0.6 %	2542 N (571 lbf)	2.8 %	3354 N (754 lbf)		
137 m (450 ft)	1.0 %	1565 N (352 lbf)	0.7 %	2790 N (627 lbf)	2.9 %	3667 N (824 lbf)		
152 m (500 ft)	1.0 %	1739 N (391 lbf)	0.7 %	3034 N (682 lbf)	2.9 %	3972 N (893 lbf)		
168 m (550 ft)	1.0 %	1913 N (430 lbf)	0.7 %	3274 N (736 lbf)				
183 m (600 ft)	1.0 %	2087 N (469 lbf)	0.7 %	3509 N (789 lbf)				
200 m (656 ft)	1.0 %	2282 N (513 lbf)	0.7 %	3769 N (847 lbf)				
15 m (50 ft)	1.0 %	230 N (52 lbf)	0.5 %	577 N (130 lbf)	1.6 %	780 N (175 lbf)	2.3 %	230 N (52 lbf)
30 m (100 ft)	1.0 %	460 N (103 lbf)	0.5 %	1007 N (226 lbf)	1.9 %	1328 N (299 lbf)	2.8 %	460 N (103 lbf)
46 m (150 ft)	1.0 %	690 N (155 lbf)	0.6 %	1391 N (313 lbf)	2.1 %	1809 N (407 lbf)	3.1 %	690 N (155 lbf)
61 m (150 ft)	1.0 %	920 N (207 lbf)	0.6 %	1748 N (393 lbf)	2.3 %	2251 N (506 lbf)	3.3 %	920 N (207 lbf)
76 m (250 ft)	1.0 %	1150 N (259 lbf)	0.6 %	2088 N (469 lbf)	2.4 %	2668 N (600 lbf)	3.6 %	1150 N (259 lbf)

CORNING

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

CORNING

Installation Conditions

	Initial Installation		NESC Light		NESC Medium		NESC Heavy	
Span	SAG	Tension	SAG	Tension	SAG	Tension	SAG	Tension
91 m (300 ft)	1.0 %	1380 N (310 lbf)	0.7 %	2415 N (543 lbf)	2.5 %	3067 N (689 lbf)	3.7 %	1380 N (310 lbf)
107 m (350 ft)	1.0 %	1610 N (362 lbf)	0.7 %	2732 N (614 lbf)	2.6 %	3451 N (776 lbf)		
122 m (400 ft)	1.0 %	1840 N (414 lbf)	0.7 %	3041 N (684 lbf)	2.7 %	3823 N (859 lbf)		
137 m (450 ft)	1.0 %	2070 N (465 lbf)	0.7 %	3344 N (752 lbf)	2.8 %	4186 N (941 lbf)		
152 m (500 ft)	1.0 %	2300 N (517 lbf)	0.7 %	3642 N (819 lbf)	2.9 %	4541 N (1021 lbf)		
168 m (550 ft)	1.0 %	2530 N (569 lbf)	0.7 %	3935 N (885 lbf)				
183 m (600 ft)	1.0 %	2760 N (620 lbf)	0.7 %	4224 N (950 lbf)				
15 m (50 ft)	1.0 %	368 N (83 lbf)	0.6 %	723 N (163 lbf)	1.7 %	904 N (203 lbf)	2.4 %	1274 N (286 lbf)
30 m (100 ft)	1.0 %	737 N (166 lbf)	0.6 %	1277 N (287 lbf)	2.0 %	1559 N (351 lbf)	2.8 %	2141 N (481 lbf)
46 m (150 ft)	1.0 %	1105 N (248 lbf)	0.7 %	1779 N (400 lbf)	2.2 %	2143 N (482 lbf)	3.1 %	2901 N (652 lbf)
61 m (200 ft)	1.0 %	1473 N (331 lbf)	0.7 %	2254 N (507 lbf)	2.3 %	2688 N (604 lbf)	3.4 %	3601 N (809 lbf)
76 m (250 ft)	1.0 %	1842 N (414 lbf)	0.8 %	2711 N (610 lbf)	2.5 %	3208 N (721 lbf)	3.6 %	4261 N (958 lbf)
91 m (300 ft)	1.0 %	2210 N (497 lbf)	0.8 %	3156 N (710 lbf)	2.6 %	3709 N (834 lbf)	3.7 %	4893 N (1100 lbf)
107 m (350 ft)	1.0 %	2579 N (580 lbf)	0.8 %	3591 N (807 lbf)	2.6 %	4196 N (943 lbf)		
122 m (400 ft)	1.0 %	2947 N (663 lbf)	0.8 %	4019 N (903 lbf)	2.7 %	4672 N (1050 lbf)		
137 m (450 ft)	1.0 %	3315 N (745 lbf)	0.8 %	4441 N (998 lbf)				
152 m (500 ft)	1.0 %	3684 N (828 lbf)	0.8 %	4857 N (1092 lbf)				

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

CORNING

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.

CORNING

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

CORNING

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	4 Select outer jacket. 4 = PE jacket (standard) A = TRPE jacket	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)
2 Select fiber code. K = 62.5 µm multimode (OM1) T = 50 µm multimode (OM2/OM3/OM4) E = Single-mode (OS2) SMF-28e+® fiber	5 Defines fiber placement. T = 12 fibers/buffer tube (standard)	
3 Defines cable type. N = SOLO® single-jacket cable <i>See Note 1.</i>	6 Select length markings. 3 = Markings in meters 4 = Markings in ft (standard)	9 Defines cable type. A = Gel-filled cable
	7 Defines tensile strength. S = SOLO short-span cable	10 Defines special manufacturing code. 20 = No special requirements

1) Use with SOLO single-jacket cable and is not a reference to "not applicable."

2) Use with buffer tube fan-out kit for direct termination applications.

3) Please contact Corning Engineering Services at 800-743-2675 for installation advice or information regarding mounting hardware.



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.

CORNING