

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

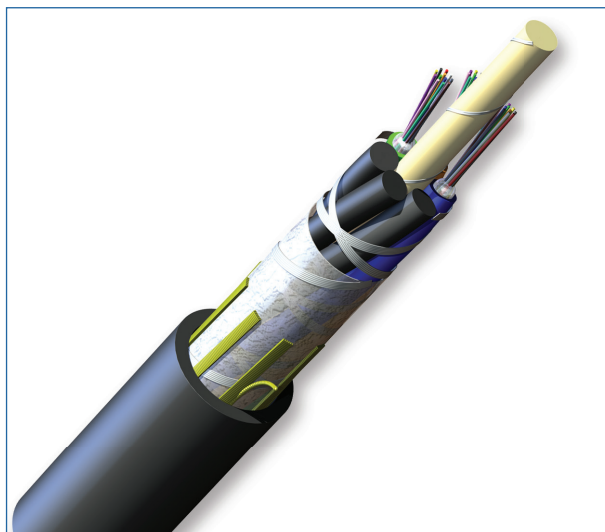
Provides efficient and craft-friendly cable preparation

Standards

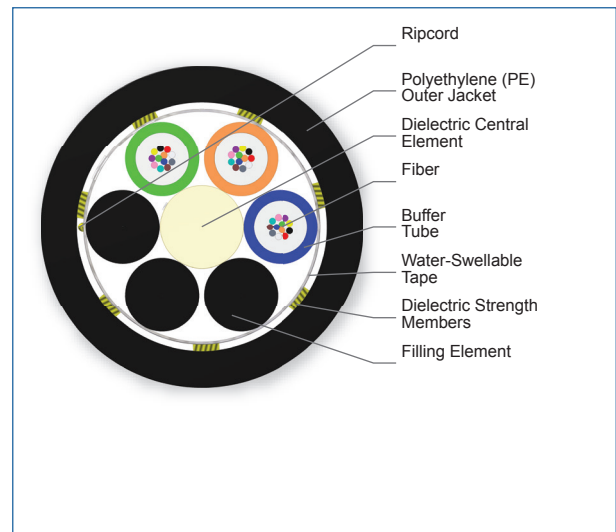
Approval and Listings	RDUP 7 CFR 1755.900 (formerly RUS)
Common Installations	Outdoor self-supporting aerial
Design and Test Criteria	ANSI/ICEA S-87-640
Preformed Line Products® (PLP®) Dead-End Product	FIBERLIGN dead-end for ADSS medium tension dead-end

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.

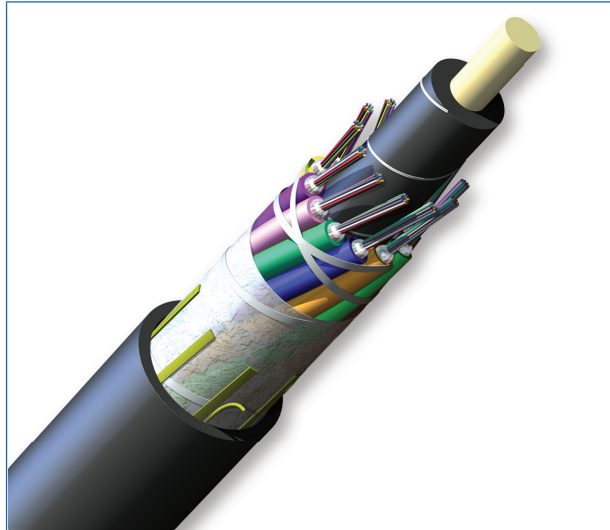


SOLO ADSS Medium-Span Cables, 36 Fibers
| Photo PIM0645

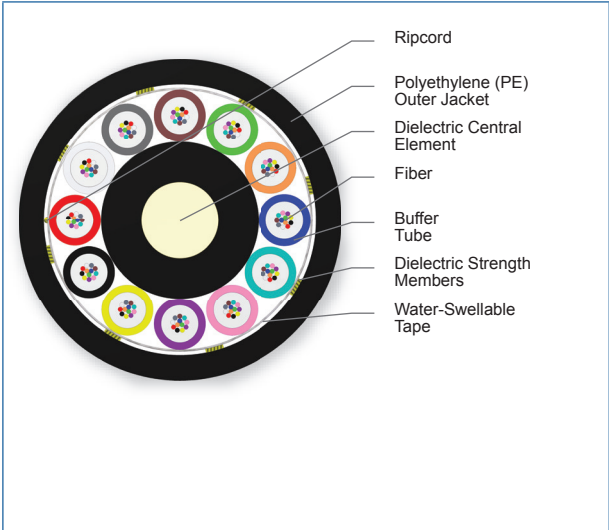


SOLO ADSS Medium-Span Cables, 36 Fibers
| Photo PIM1544

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.

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	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)	

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Chemical Characteristics

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

Span	Initial Installation		NESC Light		NESC Medium		NESC Heavy	
	SAG	Tension	SAG	Tension	SAG	Tension	SAG	Tension
12-72 Fibers								
107 m (350 ft)	1.0 %	1283 N (288 lbf)	0.6 %	2493 N (560 lbf)	2.5 %	3337 N (750 lbf)	3.7 %	4754 N (1069 lbf)
122 m (400 ft)	1.0 %	1466 N (330 lbf)	0.6 %	2777 N (624 lbf)	2.6 %	3698 N (831 lbf)	3.8 %	5248 N (1180 lbf)
137 m (450 ft)	1.0 %	1649 N (371 lbf)	0.6 %	3053 N (686 lbf)	2.7 %	4048 N (910 lbf)	3.9 %	5726 N (1287 lbf)
152 m (500 ft)	1.0 %	1833 N (412 lbf)	0.6 %	3324 N (747 lbf)	2.7 %	4389 N (987 lbf)		
168 m (550 ft)	1.0 %	2016 N (453 lbf)	0.7 %	3590 N (807 lbf)	2.8 %	4723 N (1062 lbf)		
183 m (600 ft)	1.0 %	2199 N (494 lbf)	0.7 %	3851 N (866 lbf)	2.8 %	5050 N (1135 lbf)		
198 m (650 ft)	1.0 %	2382 N (536 lbf)	0.7 %	4108 N (924 lbf)	2.9 %	5371 N (1208 lbf)		
213 m (700 ft)	1.0 %	2566 N (577 lbf)	0.7 %	4362 N (981 lbf)				
229 m (750 ft)	1.0 %	2749 N (618 lbf)	0.7 %	4613 N (1037 lbf)				
244 m (800 ft)	1.0 %	2932 N (659 lbf)	0.7 %	4861 N (1093 lbf)				
73-96 Fibers								
107 m (350 ft)	1.0 %	1715 N (385 lbf)	0.6 %	3027 N (680 lbf)	2.4 %	3891 N (875 lbf)	3.4 %	5476 N (1231 lbf)
122 m (400 ft)	1.0 %	1960 N (441 lbf)	0.7 %	3379 N (760 lbf)	2.5 %	4322 N (972 lbf)	3.6 %	6055 N (1361 lbf)
137 m (450 ft)	1.0 %	2205 N (496 lbf)	0.7 %	3724 N (837 lbf)	2.5 %	4741 N (1066 lbf)	3.7 %	6616 N (1487 lbf)
152 m (500 ft)	1.0 %	2450 N (551 lbf)	0.7 %	4063 N (916 lbf)	2.6 %	5151 N (1158 lbf)	3.8 %	7161 N (1610 lbf)
168 m (550 ft)	1.0 %	2695 N (606 lbf)	0.7 %	4395 N (988 lbf)	2.6 %	5551 N (1248 lbf)		
183 m (600 ft)	1.0 %	2939 N (661 lbf)	0.7 %	4723 N (1062 lbf)	2.7 %	5945 N (1336 lbf)		
198 m (650 ft)	1.0 %	3184 N (716 lbf)	0.7 %	5046 N (1134 lbf)	2.7 %	6331 N (1423 lbf)		

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Installation Conditions								
Span	Initial Installation		NESC Light		NESC Medium		NESC Heavy	
	SAG	Tension	SAG	Tension	SAG	Tension	SAG	Tension
213 m (700 ft)	1.0 %	3429 N (771 lbf)	0.7 %	5365 N (1206 lbf)	2.8 %	6712 N (1509 lbf)		
229 m (750 ft)	1.0 %	3674 N (826 lbf)	0.7 %	5680 N (1277 lbf)				
244 m (800 ft)	1.0 %	3919 N (881 lbf)	0.7 %	5993 N (1347 lbf)				
97-144 Fibers								
107 m (350 ft)	1.0 %	2644 N (594 lbf)	0.8 %	3801 N (855 lbf)	2.5 %	4519 N (1016 lbf)	3.5 %	6058 N (1362 lbf)
122 m (400 ft)	1.0 %	3022 N (679 lbf)	0.8 %	4258 N (957 lbf)	2.5 %	5036 N (1132 lbf)	3.7 %	6714 N (1509 lbf)
137 m (450 ft)	1.0 %	3399 N (764 lbf)	0.8 %	4708 N (1058 lbf)	2.6 %	5542 N (1246 lbf)	3.8 %	7352 N (1653 lbf)
152 m (500 ft)	1.0 %	3777 N (849 lbf)	0.8 %	5152 N (1158 lbf)	2.7 %	6040 N (1358 lbf)		
168 m (550 ft)	1.0 %	4155 N (934 lbf)	0.8 %	5591 N (1257 lbf)	2.7 %	6529 N (1468 lbf)		
183 m (600 ft)	1.0 %	4533 N (1019 lbf)	0.8 %	6025 N (1354 lbf)	2.7 %	7012 N (1576 lbf)		
198 m (650 ft)	1.0 %	4910 N (1104 lbf)	0.8 %	6455 N (1451 lbf)	2.8 %	7488 N (1683 lbf)		
213 m (700 ft)	1.0 %	5288 N (1189 lbf)	0.9 %	6882 N (1547 lbf)				
229 m (750 ft)	1.0 %	5666 N (1274 lbf)	0.9 %	7306 N (1643 lbf)				

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Transmission Performance

Fiber Type	Multimode	Multimode	Multimode	Multimode	Single-mode	Single-mode
Fiber Core Diameter (µm)	62.5	50	50	50	8.2	8.2
Fiber Category	OM1	OM2	OM3	OM4	OS2	OS2
Fiber Code	K	T	T	T	E	E
Performance Option Code	30	31	80	90	01	00
Wavelengths (nm)	850 / 1300	850 / 1300	850 / 1300	850 / 1300	1310 / 1383 / 1550	1310 / 1383 / 1550
Maximum Attenuation (dB/km)	3.4 / 1.0	3.0 / 1.0	2.8 / 1.0	2.8 / 1.0	0.4 / 0.4 / 0.3	0.35 / 0.35 / 0.25
Serial 1 Gigabit Ethernet (m)	300 / 550	750 / 600	1000 / 600	1100 / 600	5000 / - / -	5000 / - / -
Serial 10 Gigabit Ethernet (m)	33 / -	150 / -	300 / -	550 / -	10000 / - / 40000	10000 / - / 40000
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 (OS2) fiber is ITU-T G.652.D compliant.

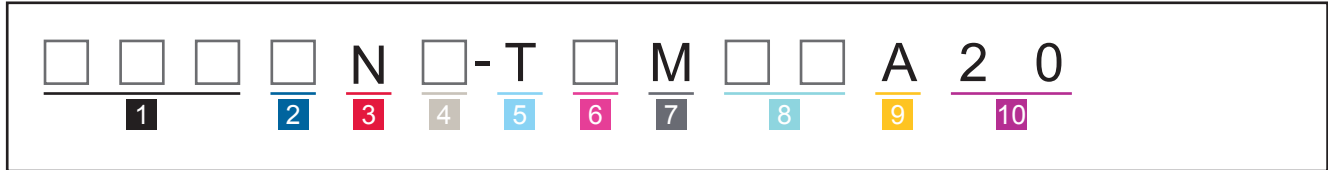
* 50 µm multimode fiber (OM4) T90 10 Gigabit Ethernet distance assumes 1.0 dB maximum total connector/splice loss.

- Notes:
- 1) Improved attenuation and bandwidth options available.
 - 2) Bend-insensitive single-mode fibers available on request.
 - 3) Contact a Corning Customer Care Representative for additional information.
 - 4) 50 µm multimode fiber macrobend loss ≤ 0.2 dB at 850 nm for two turns around 7.5 mm radius mandrel.

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



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 (OS2)
SMF-28e+® fiber

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 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)

9 Defines cable type.
A = Gel-filled cable

10 Defines special manufacturing code.
20 = No special requirements

Notes:

- 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.



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