

SOLO® ADSS Medium-Span, Loose Tube, Gel-Filled Cable 24 F, Single-mode (OS2)

CORNING

Part Number:
024EN4-T4M01A20

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.

Features and Benefits

Loose tube design

Stable performance and compatibility with all common fiber types

Self-supporting

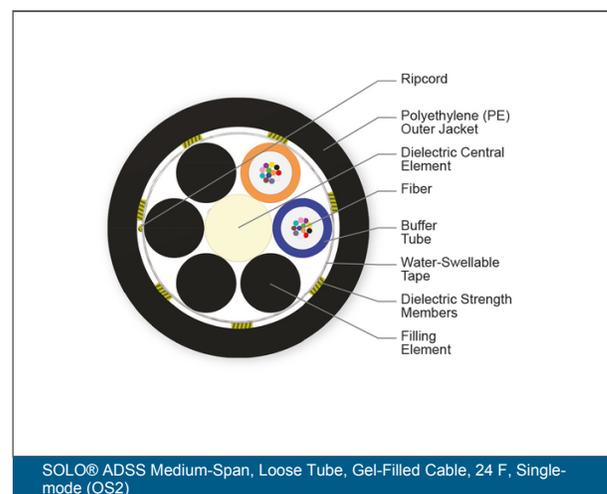
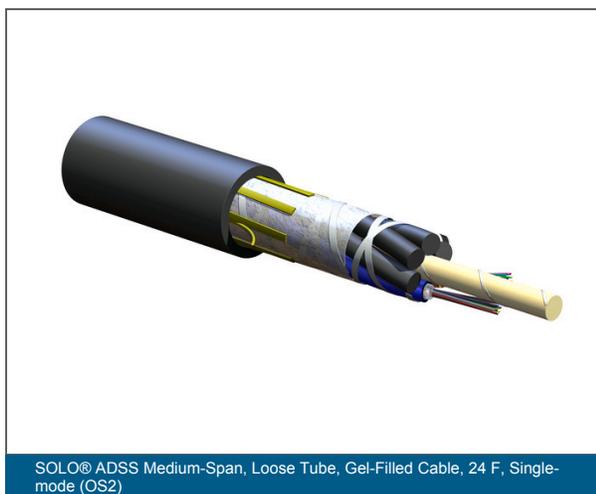
Easy, one-step installation

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



SOLO® ADSS Medium-Span, Loose Tube, Gel-Filled Cable 24 F, Single-mode (OS2)

CORNING

Specifications

General Specifications

Cable Type	Loose Tube
Environment	Outdoor
Product Type	Self-Supporting, ADSS
Fiber Category	Single-mode (OS2)
Cable geometry	Other

Standards

RoHS	Free of hazardous substances according to RoHS 2011/65/EU
Approvals and Listings	USDA Rural Development Programs
Common Installations	Outdoor self-supporting aerial
Design and Test Criteria	ANSI/ICEA S-87-640

Environmental Conditions

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

Cable Design

Central Element	Dielectric
Fiber Count	24
Number of Ripcords	1
Outer Jacket Color	Black
Outer Jacket Material	Polyethylene (PE)
Tensile Strength Elements and/or Armoring - Layer 1	Dielectric strength members
Buffer Tube Color	Blue, Orange
Buffer Tube Diameter	2.5 mm (0.1 in)

SOLO® ADSS Medium-Span, Loose Tube, Gel-Filled Cable 24 F, Single-mode (OS2)

CORNING

Cable Design

Number of Active Tubes	2
Number of Filling Elements	4
Number of Tube Positions	6
Tape	Water-swellable
Fiber Coloring	Blue, Orange, Green, Brown, Slate, White, Red, Black, Yellow, Violet, Rose, Aqua
Fibers per Tube	12
Color Code Standards	Telcordia

Mechanical Specifications

Nominal Outer Diameter	11.3 mm (0.44 in)
Min. Bend Diameter Installation	340 mm (13.39 in)
Min. Bend Diameter Operation	226 mm (8.9 in)

Optical Characteristics

Fiber Code	E
Performance Option Code	01
Fiber Category	OS2
Fiber Type	Single-mode (OS2) / 250 µm
Fiber Name	Single-mode (OS2)
Maximum Attenuation	0.4 dB/km / 0.4 dB/km / 0.3 dB/km
Wavelengths	1310 nm / 1383 nm / 1550 nm
Fiber Compliance	ITU-T G.652.D

Dimensions

Cable Weight	97 kg/km (65.18 lb/1000 ft)
--------------	-----------------------------

SOLO® ADSS Medium-Span, Loose Tube, Gel-Filled Cable 24 F, Single-mode (OS2)

CORNING

Installation Characteristics								
	Initial Installation		NESC Light		NESC Medium		NESC Heavy	
Span	SAG	Tension	SAG	Tension	SAG	Tension	SAG	Tension
Fiber Count 24								
15 m (49.2 ft)	1 %	181 N (40.7 lbf)	0.4 %	495 N (111.3 lbf)	1.6 %	717 N (161.2 lbf)	2.3 %	1,092 N (245.5 lbf)
30 m (98.4 ft)	1 %	362 N (81.4 lbf)	0.5 %	893 N (200.8 lbf)	1.9 %	1,256 N (282.4 lbf)	2.7 %	1,862 N (418.6 lbf)
46 m (150.9 ft)	1 %	543 N (122.1 lbf)	0.5 %	1,249 N (280.8 lbf)	2.1 %	1,728 N (388.5 lbf)	2.9 %	2,527 N (568.1 lbf)
61 m (200.1 ft)	1 %	725 N (163 lbf)	0.5 %	1,580 N (355.2 lbf)	2.2 %	2,162 N (486 lbf)	3.2 %	3,133 N (704.3 lbf)
76 m (249.3 ft)	1 %	906 N (203.7 lbf)	0.6 %	1,894 N (425.8 lbf)	2.3 %	2,569 N (577.5 lbf)	3.4 %	3,698 N (831.3 lbf)
91 m (298.5 ft)	1 %	1,087 N (244.4 lbf)	0.6 %	2,195 N (493.5 lbf)	2.4 %	2,956 N (664.5 lbf)	3.5 %	4,233 N (951.6 lbf)
107 m (351 ft)	1 %	1,268 N (285.1 lbf)	0.6 %	2,485 N (558.6 lbf)	2.5 %	3,328 N (748.2 lbf)	3.7 %	4,745 N (1,066.7 lbf)
122 m (400.2 ft)	1 %	1,449 N (325.8 lbf)	0.6 %	2,768 N (622.3 lbf)	2.6 %	3,688 N (829.1 lbf)	3.8 %	5,238 N (1,177.5 lbf)
137 m (449.4 ft)	1 %	1,630 N (366.4 lbf)	0.6 %	3,043 N (684.1 lbf)	2.7 %	4,037 N (907.5 lbf)	3.9 %	5,715 N (1,284.8 lbf)
152 m (498.6 ft)	1 %	1,811 N (407.1 lbf)	0.6 %	3,313 N (744.8 lbf)	2.7 %	4,377 N (984 lbf)	4.1 %	6,179 N (1,389.1 lbf)
168 m (551 ft)	1 %	1,992 N (447.8 lbf)	0.6 %	3,577 N (804.1 lbf)	2.8 %	4,710 N (1,058.8 lbf)	4.2 %	6,631 N (1,490.7 lbf)
183 m (600.2 ft)	1 %	2,174 N (488.7 lbf)	0.7 %	3,837 N (862.6 lbf)	2.8 %	5,036 N (1,132.1 lbf)	4.3 %	7,073 N (1,590.1 lbf)
198 m (649.4 ft)	1 %	2,355 N (529.4 lbf)	0.7 %	4,093 N (920.1 lbf)	2.9 %	5,355 N (1,203.8 lbf)	4.4 %	7,506 N (1,687.4 lbf)
213 m (698.6 ft)	1 %	2,536 N (570.1 lbf)	0.7 %	4,346 N (977 lbf)	2.9 %	5,670 N (1,274.7 lbf)	4.4 %	7,931 N (1,783 lbf)

SOLO® ADSS Medium-Span, Loose Tube, Gel-Filled Cable 24 F, Single-mode (OS2)



Installation Characteristics								
	Initial Installation		NESC Light		NESC Medium		NESC Heavy	
Span	SAG	Tension	SAG	Tension	SAG	Tension	SAG	Tension
229 m (751.1 ft)	1 %	2,717 N (610.8 lbf)	0.7 %	4,595 N (1,033 lbf)	3 %	5,980 N (1,344.4 lbf)		
244 m (800.3 ft)	1 %	2,898 N (651.5 lbf)	0.7 %	4,842 N (1,088.5 lbf)	3 %	6,285 N (1,412.9 lbf)		
259 m (849.5 ft)	1 %	3,079 N (692.2 lbf)	0.7 %	5,086 N (1,143.4 lbf)	3.1 %	6,586 N (1,480.6 lbf)		
274 m (898.7 ft)	1 %	3,260 N (732.9 lbf)	0.7 %	5,328 N (1,197.8 lbf)	3.1 %	6,884 N (1,547.6 lbf)		
290 m (951.2 ft)	1 %	3,441 N (773.6 lbf)	0.7 %	5,567 N (1,251.5 lbf)	3.2 %	7,178 N (1,613.7 lbf)		
305 m (1,000.4 ft)	1 %	3,623 N (814.5 lbf)	0.7 %	5,804 N (1,304.8 lbf)	3.2 %	7,469 N (1,679.1 lbf)		
320 m (1,049.6 ft)	1 %	3,804 N (855.2 lbf)	0.7 %	6,040 N (1,357.8 lbf)	3.2 %	7,757 N (1,743.8 lbf)		
335 m (1,098.8 ft)	1 %	3,985 N (895.9 lbf)	0.7 %	6,274 N (1,410.5 lbf)	3.3 %	8,043 N (1,808.1 lbf)		
351 m (1,151.3 ft)	1 %	4,166 N (936.5 lbf)	0.7 %	6,506 N (1,462.6 lbf)				
366 m (1,200.5 ft)	1 %	4,347 N (977.2 lbf)	0.8 %	6,737 N (1,514.5 lbf)				
381 m (1,249.7 ft)	1 %	4,528 N (1,017.9 lbf)	0.8 %	6,966 N (1,566 lbf)				
396 m (1,298.9 ft)	1 %	4,709 N (1,058.6 lbf)	0.8 %	7,194 N (1,617.3 lbf)				
411 m (1,348.1 ft)	1 %	4,891 N (1,099.5 lbf)	0.8 %	7,421 N (1,668.3 lbf)				
427 m (1,400.6 ft)	1 %	5,072 N (1,140.2 lbf)	0.8 %	7,646 N (1,718.9 lbf)				

SOLO® ADSS Medium-Span, Loose Tube, Gel-Filled Cable 24 F, Single-mode (OS2)



Installation Characteristics								
	Initial Installation		NESC Light		NESC Medium		NESC Heavy	
Span	SAG	Tension	SAG	Tension	SAG	Tension	SAG	Tension
442 m (1,449.8 ft)	1 %	5,253 N (1,180.9 lbf)	0.8 %	7,871 N (1,769.5 lbf)				
457 m (1,499 ft)	1 %	5,434 N (1,221.6 lbf)	0.8 %	8,094 N (1,819.6 lbf)				



Corning Optical Communications LLC • 4200 Corning Place • Charlotte, NC • 28216 • United States
 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. All other trademarks are the properties of their respective owners. Corning Optical Communications is ISO 9001 certified. © 2025 Corning Optical Communications. All rights reserved.