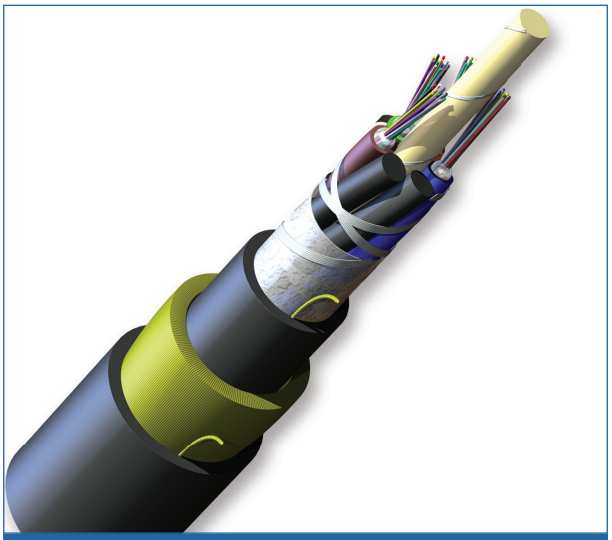
SOLO® ADSS Loose Tube, Gel-Filled, Dual-Jacket Cable

48 F, 50 µm multimode (OM2)

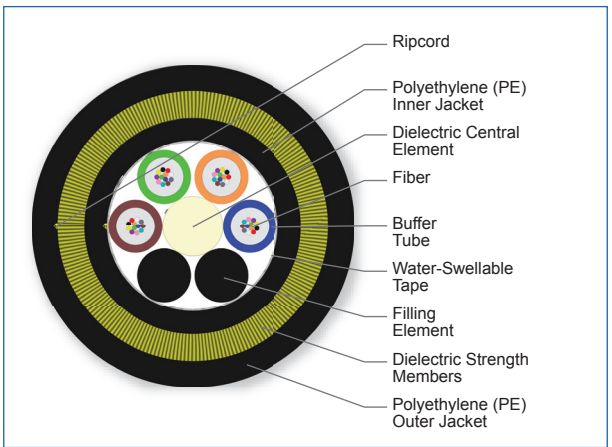
CORNING

Corning SOLO® ADSS optical 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 cable design can span distances in excess of 500 m (1650 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.



Part Number: 048TAE-T4E31A20



Cross Section of Part Number: 048TAE-T4E31A20

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	USDA Rural Development Programs
Common Installations	Outdoor self-supporting aerial
Design and Test Criteria	ANSI/ICEA S-87-640

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Specifications

General Specifications	
Environment	Outdoor
Application	Self-Supporting
Cable Type	Loose Tube
Product Type	Self-Supporting
Fiber Category	50 µm MM (OM2)

Temperature Range	
Storage	-40 °C to 75 °C (-40 °F to 167 °F)
Installation	-30 °C to 70 °C (-22 °F to 158 °F)
Operation	-40 °C to 70 °C (-40 °F to 158 °F)

Cable Design	
Central Element	Dielectric
Fiber Count	48
Fiber Coloring	Blue, Orange, Green, Brown, Slate, White, Red, Black, Yellow, Violet, Rose, Aqua
Fibers per Tube	12
Number of Tube Positions	6
Number of Active Tubes	4
Buffer Tube Color Coding	Blue, Orange, Green, Brown
Buffer Tube Diameter	2.85 mm (0.11 in)
Number of Filling Elements	2
Tape	Water-swellable
Inner Jacket Material	Polyethylene (PE)
Tensile Strength Elements and/or Armoring - Layer 1	Dielectric strength members
Number of Ripcords	3
Outer Jacket Material	Polyethylene (PE)
Outer Jacket Color	Black

Mechanical Characteristics Cable	
Weight	212 kg/km (142 lb/1000 ft)
Nominal Outer Diameter	17.1 mm (0.67 in)
Min. Bend Radius Installation	257 mm (10.1 in)

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Mechanical Characteristics Cable

Min. Bend Radius Operation	171 mm (6.7 in)
Span Code	4

Installation Conditions

	Initial Installation		NESC Light		NESC Medium		NESC Heavy	
Span m (ft)	SAG %	Tension N (lbf)	SAG %	Tension N (lbf)	SAG %	Tension N (lbf)	SAG %	Tension N (lbf)
335 (1100)	1	8671 (1951)	1.4	12311 (2770)	2.7	14351 (3229)	3.7	20324 (4573)
366 (1200)	1	9462 (2129)	1.4	13284 (2989)	2.8	15440 (3474)	3.7	21764 (4897)
396 (1300)	1	10249 (2306)	1.4	14249 (3206)	2.8	16516 (3716)	3.8	23178 (5215)
427 (1400)	1	11040 (2484)	1.4	15204 (3421)	2.8	17578 (3955)	3.9	24569 (5528)
457 (1500)	1	11827 (2661)	1.4	16151 (3634)	2.8	18627 (4191)	-	
488 (1600)	1	12613 (2838)	1.4	17093 (3846)	2.9	19667 (4425)	-	
518 (1700)	1	13404 (3016)	1.4	18022 (4055)	2.9	20698 (4657)	-	
549 (1800)	1	14191 (3193)	1.4	18951 (4264)	3	21716 (4886)	-	
579 (1900)	1	14982 (3371)	1.4	19871 (4471)	3	22724 (5113)	-	
610 (2000)	1	15769 (3548)	1.5	20787 (4677)	3	23729 (5339)	-	
640 (2100)	1	16556 (3725)	1.5	21698 (4882)	-		-	
671 (2200)	1	17347 (3903)	1.5	22600 (5085)	-		-	
701 (2300)	1	18133 (4080)	1.5	23502 (5288)	-		-	
731 (2400)	1	18880 (4248)	1.5	24400 (5490)	-		-	

Chemical Characteristics

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

Fiber Specifications

Optical Characteristics (cabled)

Fiber Core Diameter	50 µm
Fiber Category	OM2
Fiber Code	T
Performance Option Code	31

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

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Fiber Specifications

Optical Characteristics (cabled)	
Wavelengths	850 nm / 1300 nm
Maximum Attenuation	3.0 dB/km / 1.0 dB/km
Serial 1 Gigabit Ethernet	750 m / 500 m
Serial 10 Gigabit Ethernet	150 m / -
Min. Overfilled Launch (OFL) Bandwidth	700 MHz*km / 500 MHz*km
Minimum Effective Modal Bandwidth (EMB)	950 MHz*km / -

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Ordering Information

Part Number	048TAE-T4E31A20
Product Description	SOLO® ADSS Loose Tube, Gel-Filled, Dual-Jacket Cable, Span Code E, 48 F, 50 µm multimode (OM2)

RoHS COMPLIANT

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