

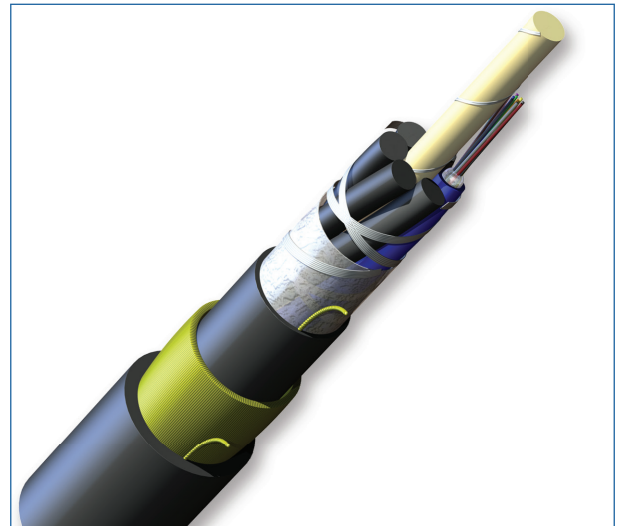
SOLO® ADSS Loose Tube, Gel-Filled, Dual-Jacket Cable

12 F, 50 μ m 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: 012TAE-T4531A20

Features and Benefits

Loose tube design

Stable performance and compatibility with all common fiber types

Self-supporting

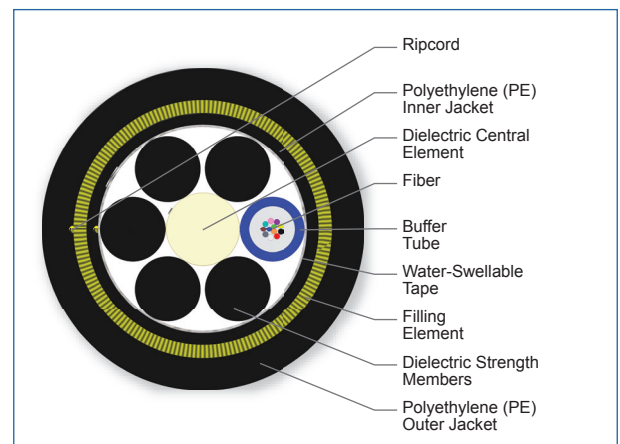
Easy, one-step installation

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



Cross Section of Part Number: 012TAE-T4531A20

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	12
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	1
Buffer Tube Color Coding	Blue
Buffer Tube Diameter	2.85 mm (0.11 in)
Number of Filling Elements	5
Tape	Water-swellaable
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	148 kg/km (99 lb/1000 ft)
Nominal Outer Diameter	14.0 mm (0.55 in)
Min. Bend Radius Installation	210 mm (8.3 in)

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Mechanical Characteristics Cable

Min. Bend Radius Operation	140 mm (5.5 in)
Span Code	5

Installation Conditions

Span m (ft)	Initial Installation		NESC Light		NESC Medium		NESC Heavy	
	SAG %	Tension N (lbf)	SAG %	Tension N (lbf)	SAG %	Tension N (lbf)	SAG %	Tension N (lbf)
122 (400)	1	2182 (491)	1.4	3787 (852)	2.3	4676 (1052)	3.6	6889 (1550)
152 (500)	1	2729 (614)	1.4	4569 (1028)	2.7	5605 (1261)	3.8	8164 (1837)
183 (600)	1	3276 (737)	1.5	5324 (1198)	2.9	6492 (1461)	3.9	9382 (2111)
213 (700)	1	3818 (859)	1.5	6062 (1364)	3	7342 (1652)	4.1	10551 (2374)
244 (800)	1	4364 (982)	1.5	6782 (1526)	3.1	8173 (1839)	-	
274 (900)	1	4911 (1105)	1.5	7484 (1684)	3.2	8987 (2022)	-	
305 (1000)	1	5458 (1228)	1.6	8178 (1840)	3.2	9782 (2201)	-	
335 (1100)	1	6000 (1350)	1.6	8862 (1994)	3.3	10564 (2377)	-	
366 (1200)	1	6547 (1473)	1.6	9538 (2146)	-		-	
396 (1300)	1	7093 (1596)	1.6	10204 (2296)	-		-	

Chemical Characteristics

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

Optical Characteristics (cabled)

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

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)

Min. Overfilled Launch (OFL) Bandwidth	700 MHz*km / 500 MHz*km
Minimum Effective Modal Bandwidth (EMB)	950 MHz*km / -

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.
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Ordering Information

Part Number	012TAE-T4531A20
Product Description	SOLO® ADSS Loose Tube, Gel-Filled, Dual-Jacket Cable, Span Code 5, 12 F, 50 µm multimode (OM2)



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