# SOLO® ADSS Loose Tube, Gel-Filled, Dual-Jacket Cable 12 F, 62.5 µm multimode (OM1)

**Part Number:**
**012KAE-T4E30A20**

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.

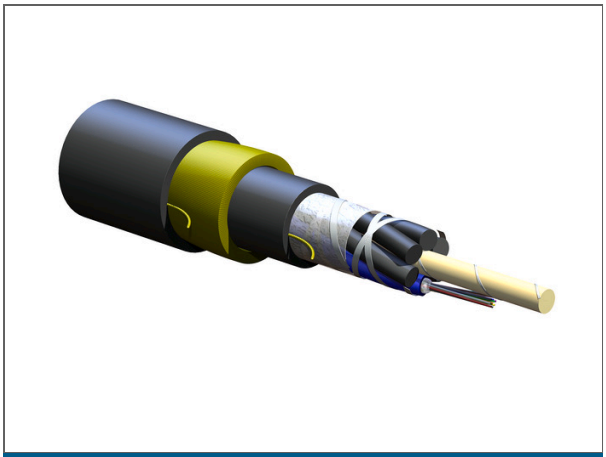
## Features and Benefits

**Loose tube design**
Stable performance and compatibility with all common fiber types

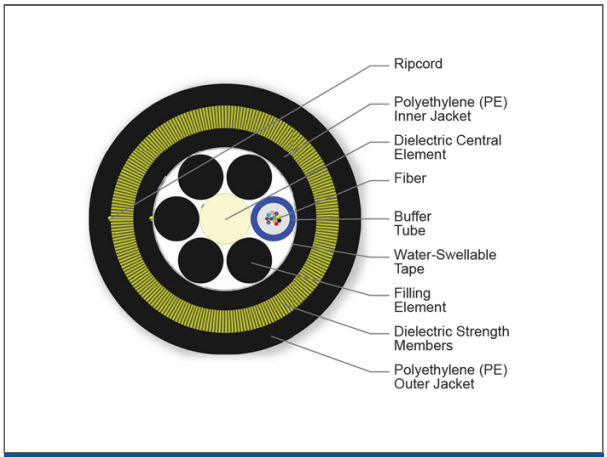
**Self-supporting**
Easy, one-step installation

**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 Loose Tube, Gel-Filled Dual-Jacket Cable, Span Code E, 12 F, 62.5 µm multimode (OM1)




SOLO® ADSS Loose Tube, Gel-Filled Dual-Jacket Cable, Span Code E, 12 F, 62.5 µm multimode (OM1)

# SOLO® ADSS Loose Tube, Gel-Filled, Dual-Jacket Cable 12 F, 62.5 µm multimode (OM1)

CORNING

## Specifications

| General Specifications | |
|---|---|
| Cable Type | Loose Tube |
| Environment | Outdoor |
| Product Type | Self-Supporting, ADSS |
| Fiber Category | 62.5 µm MM (OM1) |
| 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 75 °C (-40 °F to 167 °F ) |

| Cable Design | |
|---|---|
| Central Element | Dielectric |
| Fiber Count | 12 |
| Number of Ripcords | 3 |
| Outer Jacket Color | Black |
| Outer Jacket Material | Polyethylene (PE) |
| Tensile Strength Elements and/or Armoring - Layer 1 | Dielectric strength members |
| Buffer Tube Color | Blue |
| Buffer Tube Diameter | 2.85 mm (0.11 in) |

# SOLO® ADSS Loose Tube, Gel-Filled, Dual-Jacket Cable 12 F, 62.5 µm multimode (OM1)

CORNING

| Cable Design | |
|---|---|
| Inner Jacket Material | Polyethylene (PE) |
| Number of Active Tubes | 1 |
| Number of Filling Elements | 5 |
| 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 | 17.1 mm (0.67 in ) |
| Span Code | 4 |
| Min. Bend Diameter Installation | 514 mm (20.24 in) |
| Min. Bend Diameter Operation | 342 mm (13.46 in) |

| Optical Characteristics | |
|---|---|
| Fiber Code | K |
| Performance Option Code | 30 |
| Fiber Category | OM1 |
| Fiber Type | Multimode |
| Fiber Name | 62.5 µm MM (OM1) |
| Maximum Attenuation | 3.4 dB/km / 1.0 dB/km |
| Wavelengths | 850 nm / 1300 nm |
| Fiber Compliance | ISO/IEC 11801 |
| Fiber Core Diameter | 62.5 µm |
| Coating diameter | 242 µm |
| Serial 1 Gigabit Ethernet | 300 m / 550 m |
| Serial 10 Gigabit Ethernet | 33 m / - |

# SOLO® ADSS Loose Tube, Gel-Filled, Dual-Jacket Cable 12 F, 62.5 µm multimode (OM1)

CORNING

| Optical Characteristics | |
|---|---|
| Minimum Effective Modal Bandwidth (EMB) | 220 MHz*km / - |
| Min. Overfilled Launch (OFL) Bandwidth | 200 MHz*km / 500 MHz*km |

| Dimensions | |
|---|---|
| Cable Weight | 212 kg/km (142.46 lb/1000 ft) |

**Installation Characteristics**

| | Initial Installation | | NESC Light | | NESC Medium | | NESC Heavy | |
|---|---|---|---|---|---|---|---|---|
| Span | SAG | Tension | SAG | Tension | SAG | Tension | SAG | Tension |
| Fiber Count 12 | | | | | | | | |
| 15 m (49.2 ft) | 1 % | 395 N (88.8 lbf) | 0.6 % | 728 N (163.7 lbf) | 1.7 % | 965 N (216.9 lbf) | 2 % | 1,522 N (342.2 lbf) |
| 30 m (98.4 ft) | 1 % | 790 N (177.6 lbf) | 0.6 % | 1,414 N (317.9 lbf) | 1.8 % | 1,845 N (414.8 lbf) | 2.2 % | 2,831 N (636.4 lbf) |
| 46 m (150.9 ft) | 1 % | 1,185 N (266.4 lbf) | 0.6 % | 2,069 N (465.1 lbf) | 1.8 % | 2,669 N (600 lbf) | 2.3 % | 4,020 N (903.7 lbf) |
| 61 m (200.1 ft) | 1 % | 1,580 N (355.2 lbf) | 0.6 % | 2,700 N (607 lbf) | 1.9 % | 3,451 N (775.8 lbf) | 2.4 % | 5,126 N (1,152.4 lbf) |
| 76 m (249.3 ft) | 1 % | 1,975 N (444 lbf) | 0.7 % | 3,312 N (744.6 lbf) | 1.9 % | 4,202 N (944.6 lbf) | 2.5 % | 6,172 N (1,387.5 lbf) |
| 91 m (298.5 ft) | 1 % | 2,370 N (532.8 lbf) | 0.7 % | 3,908 N (878.5 lbf) | 2 % | 4,926 N (1,107.4 lbf) | 2.6 % | 7,172 N (1,612.3 lbf) |
| 107 m (351 ft) | 1 % | 2,765 N (621.6 lbf) | 0.7 % | 4,491 N (1,009.6 lbf) | 2 % | 5,629 N (1,265.5 lbf) | 2.7 % | 8,133 N (1,828.4 lbf) |
| 122 m (400.2 ft) | 1 % | 3,160 N (710.4 lbf) | 0.7 % | 5,063 N (1,138.2 lbf) | 2.1 % | 6,313 N (1,419.2 lbf) | 2.7 % | 9,063 N (2,037.4 lbf) |
| 137 m (449.4 ft) | 1 % | 3,555 N (799.2 lbf) | 0.7 % | 5,624 N (1,264.3 lbf) | 2.1 % | 6,982 N (1,569.6 lbf) | 2.8 % | 9,965 N (2,240.2 lbf) |

# SOLO® ADSS Loose Tube, Gel-Filled, Dual-Jacket Cable 12 F, 62.5 µm multimode (OM1)

CORNING

| Installation Characteristics | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Initial Installation | | NESC Light | | NESC Medium | | NESC Heavy | |
| Span | SAG | Tension | SAG | Tension | SAG | Tension | SAG | Tension |
| 152 m (498.6 ft) | 1 % | 3,950 N (888 lbf) | 0.7 % | 6,176 N (1,388.4 lbf) | 2.1 % | 7,638 N (1,717.1 lbf) | 2.9 % | 10,845 N (2,438.1 lbf) |
| 168 m (551 ft) | 1 % | 4,345 N (976.8 lbf) | 0.7 % | 6,721 N (1,510.9 lbf) | 2.2 % | 8,281 N (1,861.6 lbf) | 2.9 % | 11,704 N (2,631.2 lbf) |
| 183 m (600.2 ft) | 1 % | 4,740 N (1,065.6 lbf) | 0.7 % | 7,258 N (1,631.7 lbf) | 2.2 % | 8,913 N (2,003.7 lbf) | 3 % | 12,545 N (2,820.2 lbf) |
| 198 m (649.4 ft) | 1 % | 5,134 N (1,154.2 lbf) | 0.7 % | 7,790 N (1,751.3 lbf) | 2.2 % | 9,536 N (2,143.8 lbf) | 3 % | 13,370 N (3,005.7 lbf) |
| 213 m (698.6 ft) | 1 % | 5,529 N (1,243 lbf) | 0.7 % | 8,315 N (1,869.3 lbf) | 2.3 % | 10,149 N (2,281.6 lbf) | 3.1 % | 14,180 N (3,187.8 lbf) |
| 229 m (751.1 ft) | 1 % | 5,924 N (1,331.8 lbf) | 0.7 % | 8,835 N (1,986.2 lbf) | 2.3 % | 10,755 N (2,417.8 lbf) | 3.1 % | 14,977 N (3,367 lbf) |
| 244 m (800.3 ft) | 1 % | 6,319 N (1,420.6 lbf) | 0.7 % | 9,350 N (2,102 lbf) | 2.3 % | 11,354 N (2,552.5 lbf) | 3.2 % | 15,762 N (3,543.4 lbf) |
| 259 m (849.5 ft) | 1 % | 6,714 N (1,509.4 lbf) | 0.8 % | 9,861 N (2,216.8 lbf) | 2.3 % | 11,945 N (2,685.3 lbf) | 3.2 % | 16,535 N (3,717.2 lbf) |
| 274 m (898.7 ft) | 1 % | 7,109 N (1,598.2 lbf) | 0.8 % | 10,368 N (2,330.8 lbf) | 2.4 % | 12,531 N (2,817.1 lbf) | 3.3 % | 17,299 N (3,889 lbf) |
| 290 m (951.2 ft) | 1 % | 7,504 N (1,687 lbf) | 0.8 % | 10,871 N (2,443.9 lbf) | 2.4 % | 13,110 N (2,947.2 lbf) | 3.3 % | 18,052 N (4,058.2 lbf) |
| 305 m (1,000.4 ft) | 1 % | 7,899 N (1,775.8 lbf) | 0.8 % | 11,370 N (2,556.1 lbf) | 2.4 % | 13,685 N (3,076.5 lbf) | 3.3 % | 18,797 N (4,225.7 lbf) |
| 320 m (1,049.6 ft) | 1 % | 8,294 N (1,864.6 lbf) | 0.8 % | 11,866 N (2,667.6 lbf) | 2.4 % | 14,254 N (3,204.4 lbf) | 3.4 % | 19,534 N (4,391.4 lbf) |
| 335 m (1,098.8 ft) | 1 % | 8,689 N (1,953.4 lbf) | 0.8 % | 12,358 N (2,778.2 lbf) | 2.4 % | 14,818 N (3,331.2 lbf) | 3.4 % | 20,262 N (4,555.1 lbf) |

# SOLO® ADSS Loose Tube, Gel-Filled, Dual-Jacket Cable 12 F, 62.5 µm multimode (OM1)

CORNING

| Installation Characteristics | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Initial Installation | | NESC Light | | NESC Medium | | NESC Heavy | |
| Span | SAG | Tension | SAG | Tension | SAG | Tension | SAG | Tension |
| 351 m (1,151.3 ft) | 1 % | 9,084 N (2,042.2 lbf) | 0.8 % | 12,848 N (2,888.3 lbf) | 2.5 % | 15,378 N (3,457.1 lbf) | 3.4 % | 20,984 N (4,717.4 lbf) |
| 366 m (1,200.5 ft) | 1 % | 9,479 N (2,131 lbf) | 0.8 % | 13,335 N (2,997.8 lbf) | 2.5 % | 15,934 N (3,582.1 lbf) | 3.5 % | 21,698 N (4,877.9 lbf) |
| 381 m (1,249.7 ft) | 1 % | 9,874 N (2,219.8 lbf) | 0.8 % | 13,820 N (3,106.9 lbf) | 2.5 % | 16,486 N (3,706.2 lbf) | 3.5 % | 22,406 N (5,037.1 lbf) |
| 396 m (1,298.9 ft) | 1 % | 10,269 N (2,308.6 lbf) | 0.8 % | 14,302 N (3,215.2 lbf) | 2.5 % | 17,034 N (3,829.4 lbf) | 3.5 % | 23,108 N (5,194.9 lbf) |
| 411 m (1,348.1 ft) | 1 % | 10,664 N (2,397.4 lbf) | 0.8 % | 14,781 N (3,322.9 lbf) | 2.5 % | 17,578 N (3,951.7 lbf) | 3.6 % | 23,804 N (5,351.4 lbf) |
| 427 m (1,400.6 ft) | 1 % | 11,059 N (2,486.2 lbf) | 0.8 % | 15,259 N (3,430.4 lbf) | 2.5 % | 18,119 N (4,073.3 lbf) | 3.6 % | 24,494 N (5,506.5 lbf) |
| 442 m (1,449.8 ft) | 1 % | 11,454 N (2,575 lbf) | 0.8 % | 15,734 N (3,537.1 lbf) | 2.6 % | 18,657 N (4,194.3 lbf) | 3.6 % | 25,179 N (5,660.5 lbf) |
| 457 m (1,499 ft) | 1 % | 11,849 N (2,663.8 lbf) | 0.8 % | 16,208 N (3,643.7 lbf) | 2.6 % | 19,192 N (4,314.5 lbf) | 3.6 % | 25,859 N (5,813.3 lbf) |
| 472 m (1,548.2 ft) | 1 % | 12,244 N (2,752.6 lbf) | 0.8 % | 16,679 N (3,749.6 lbf) | 2.6 % | 19,724 N (4,434.1 lbf) | 3.7 % | 26,535 N (5,965.3 lbf) |
| 488 m (1,600.6 ft) | 1 % | 12,639 N (2,841.4 lbf) | 0.8 % | 17,149 N (3,855.2 lbf) | 2.6 % | 20,253 N (4,553.1 lbf) | 3.7 % | 27,205 N (6,115.9 lbf) |
| 503 m (1,649.8 ft) | 1 % | 13,034 N (2,930.2 lbf) | 0.8 % | 17,617 N (3,960.5 lbf) | 2.6 % | 20,780 N (4,671.5 lbf) | 3.7 % | 27,871 N (6,265.6 lbf) |
| 518 m (1,699 ft) | 1 % | 13,429 N (3,019 lbf) | 0.8 % | 18,083 N (4,065.2 lbf) | 2.6 % | 21,304 N (4,789.3 lbf) | 3.7 % | 28,533 N (6,414.5 lbf) |
| 533 m (1,748.2 ft) | 1 % | 13,824 N (3,107.8 lbf) | 0.8 % | 18,548 N (4,169.8 lbf) | 2.6 % | 21,826 N (4,906.7 lbf) | 3.8 % | 29,191 N (6,562.4 lbf) |

# SOLO® ADSS Loose Tube, Gel-Filled, Dual-Jacket Cable 12 F, 62.5 µm multimode (OM1)

CORNING

| Installation Characteristics | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Initial Installation | | NESC Light | | NESC Medium | | NESC Heavy | |
| Span | SAG | Tension | SAG | Tension | SAG | Tension | SAG | Tension |
| 549 m (1,800.7 ft) | 1 % | 14,219 N (3,196.6 lbf) | 0.8 % | 19,011 N (4,273.8 lbf) | 2.7 % | 22,345 N (5,023.4 lbf) | 3.8 % | 29,845 N (6,709.4 lbf) |
| 564 m (1,849.9 ft) | 1 % | 14,614 N (3,285.4 lbf) | 0.8 % | 19,473 N (4,377.7 lbf) | 2.7 % | 22,862 N (5,139.6 lbf) | 3.8 % | 30,496 N (6,855.8 lbf) |
| 579 m (1,899.1 ft) | 1 % | 15,008 N (3,373.9 lbf) | 0.8 % | 19,933 N (4,481.1 lbf) | 2.7 % | 23,377 N (5,255.4 lbf) | 3.8 % | 31,142 N (7,001 lbf) |
| 594 m (1,948.3 ft) | 1 % | 15,403 N (3,462.7 lbf) | 0.8 % | 20,392 N (4,584.3 lbf) | 2.7 % | 23,889 N (5,370.5 lbf) | 3.9 % | 31,786 N (7,145.8 lbf) |
| 610 m (2,000.8 ft) | 1 % | 15,798 N (3,551.5 lbf) | 0.8 % | 20,850 N (4,687.3 lbf) | 2.7 % | 24,400 N (5,485.3 lbf) | 3.9 % | 32,425 N (7,289.4 lbf) |
| 625 m (2,050 ft) | 1 % | 16,193 N (3,640.3 lbf) | 0.8 % | 21,306 N (4,789.8 lbf) | 2.7 % | 24,909 N (5,599.8 lbf) | 3.9 % | 33,062 N (7,432.6 lbf) |
| 640 m (2,099.2 ft) | 1 % | 16,588 N (3,729.1 lbf) | 0.8 % | 21,761 N (4,892.1 lbf) | 2.7 % | 25,416 N (5,713.8 lbf) | 3.9 % | 33,695 N (7,574.9 lbf) |
| 655 m (2,148.4 ft) | 1 % | 16,983 N (3,817.9 lbf) | 0.8 % | 22,216 N (4,994.4 lbf) | 2.7 % | 25,921 N (5,827.3 lbf) | 3.9 % | 34,326 N (7,716.8 lbf) |
| 671 m (2,200.9 ft) | 1 % | 17,378 N (3,906.7 lbf) | 0.8 % | 22,669 N (5,096.2 lbf) | 2.7 % | 26,424 N (5,940.4 lbf) | 4 % | 34,953 N (7,857.8 lbf) |

RoHS COMPLIANT

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