

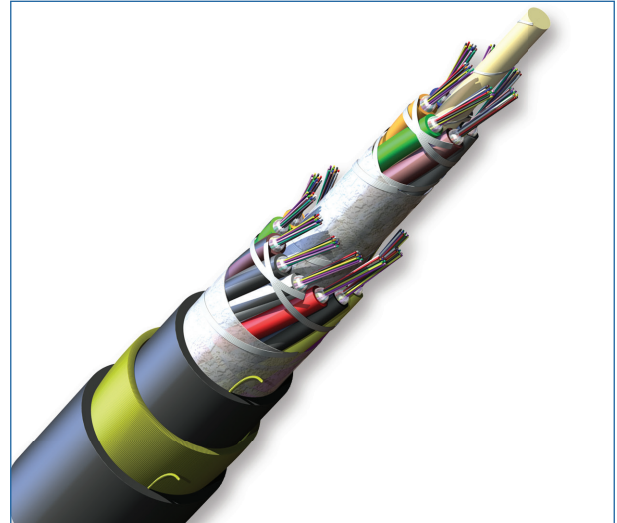
# SOLO® ADSS Loose Tube, Gel-Filled, Dual-Jacket Cable

216 F, 50  $\mu$ m multimode (OM2)

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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: 216TAE-T4A31A20

## Features and Benefits

### Loose tube design

Stable performance and compatibility with all common fiber types

### Self-supporting

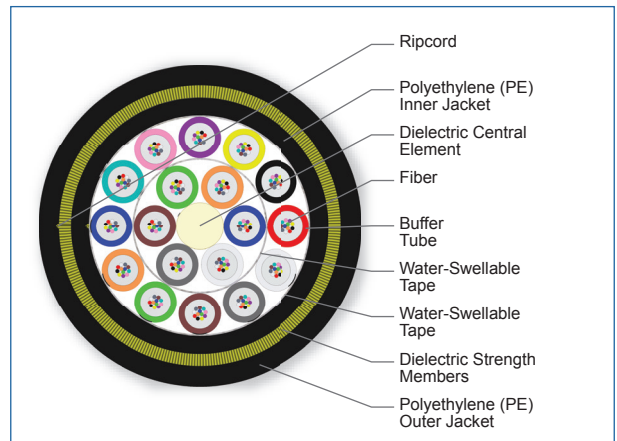
Easy, one-step installation

### 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: 216TAE-T4A31A20

## Standards

|                                 |                                 |
|---------------------------------|---------------------------------|
| <b>Approvals and Listings</b>   | USDA Rural Development Programs |
| <b>Common Installations</b>     | Outdoor self-supporting aerial  |
| <b>Design and Test Criteria</b> | 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                                         | 216                                                                                    |
| Fiber Coloring                                      | Blue, Orange, Green, Brown, Slate, White, Red, Black, Yellow, Violet, Rose, Aqua       |
| Fibers per Tube                                     | 12                                                                                     |
| Number of Tube Positions                            | 18                                                                                     |
| Number of Active Tubes                              | 18                                                                                     |
| Buffer Tube Color Coding, Layer 1                   | Blue, Orange, Green, Brown, Slate, White                                               |
| Buffer Tube Diameter                                | 2.85 mm (0.11 in)                                                                      |
| Tape                                                | Water-swellaable                                                                       |
| Buffer Tube Color Coding, Layer 2                   | Red, Black, Yellow, Violet, Rose, Aqua, Blue*, Orange*, Green*, Brown*, Slate*, White* |
| Tape, Layer 2                                       | 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                                                                                  |

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## Mechanical Characteristics Cable

|                               |                            |
|-------------------------------|----------------------------|
| Weight                        | 341 kg/km (229 lb/1000 ft) |
| Nominal Outer Diameter        | 21.8 mm (0.86 in)          |
| Min. Bend Radius Installation | 327 mm (12.9 in)           |
| Min. Bend Radius Operation    | 218 mm (8.6 in)            |
| Span Code                     | A                          |

## Installation Conditions

| Span<br>m (ft) | Initial Installation |                    | NESC Light |                    | NESC Medium |                    | NESC Heavy |                    |
|----------------|----------------------|--------------------|------------|--------------------|-------------|--------------------|------------|--------------------|
|                | SAG<br>%             | Tension<br>N (lbf) | SAG<br>%   | Tension<br>N (lbf) | SAG<br>%    | Tension<br>N (lbf) | SAG<br>%   | Tension<br>N (lbf) |
| 183 (600)      | 1                    | 7556 (1700)        | 1.2        | 9453 (2127)        | 2.5         | 10560 (2376)       | 303        | 14422 (3245)       |
| 213 (700)      | 1                    | 8813 (1983)        | 1.2        | 10880 (2448)       | 2.5         | 12089 (2720)       | 3.4        | 16351 (3679)       |
| 244 (800)      | 1                    | 10076 (2267)       | 1.3        | 12293 (2766)       | 2.5         | 13596 (3059)       | 3.5        | 18227 (4101)       |
| 274 (900)      | 1                    | 11333 (2550)       | 1.3        | 13680 (3078)       | 2.6         | 15080 (3393)       | 3.5        | 20058 (4513)       |
| 305 (1000)     | 1                    | 12591 (2833)       | 1.3        | 15058 (3388)       | 2.6         | 16542 (3722)       | -          |                    |
| 335 (1100)     | 1                    | 33853 (3117)       | 1.3        | 16431 (3697)       | 2.7         | 17991 (4048)       | -          |                    |
| 366 (1200)     | 1                    | 1511 (3400)        | 1.3        | 17791 (4003)       | 2.7         | 19431 (4972)       | -          |                    |
| 396 (1100)     | 1                    | 16369 (3683)       | 1.3        | 19147 (4308)       | 2.7         | 20853 (4692)       | -          |                    |
| 427 (1400)     | 1                    | 17631 (3967)       | 1.3        | 20493 (4611)       | -           |                    | -          |                    |

## 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                    |
| Wavelengths             | 850 nm / 1300 nm      |
| Maximum Attenuation     | 3.0 dB/km / 1.0 dB/km |

Notes: 1) 50 µm multimode fiber macrobend loss  $\leq 0.2$  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)        |                         |
|-----------------------------------------|-------------------------|
| 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 / -          |

Notes: 1) 50 µm multimode fiber macrobend loss  $\leq 0.2$  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.

## Ordering Information

|                     |                                                                                                 |
|---------------------|-------------------------------------------------------------------------------------------------|
| Part Number         | 216TAE-T4A31A20                                                                                 |
| Product Description | SOLO® ADSS Loose Tube, Gel-Filled, Dual-Jacket Cable, Span Code A, 216 F, 50 µm multimode (OM2) |



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