

# SOLO® ADSS Short-Span, Loose Tube, Gel-Filled Cable

48 F, 50 µm multimode (OM3)

CORNING

Corning SOLO® ADSS short-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 up to 600 ft in NESC light conditions, 500 ft in NESC medium conditions and 300 ft in NESC heavy conditions (see sag and tension chart for details).

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

Mechanical ruggedness and environmental durability

### Self-supporting

Easy, one-step installation

### Track-resistant polyethylene (TRPE) jacket available

Suitable for installations up to 25 kV electric field potential

### Innovative waterblocking design

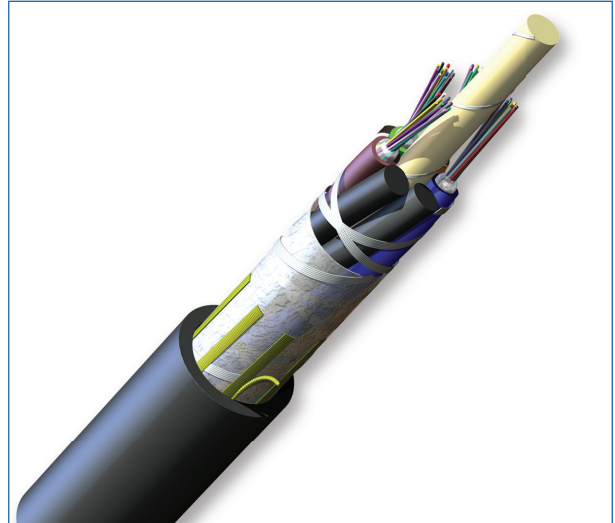
Provides efficient and craft-friendly cable preparation

## Standards

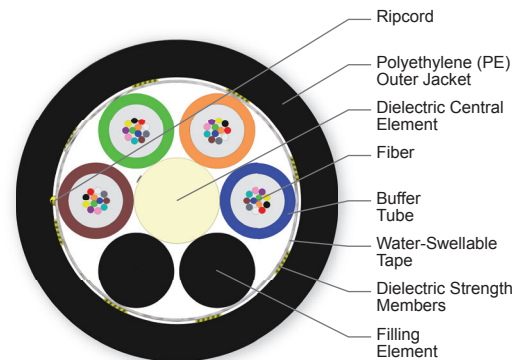
|                               |                                       |
|-------------------------------|---------------------------------------|
| <b>Approvals and Listings</b> | RDUP 7 CFR 1755.900<br>(formerly RUS) |
|-------------------------------|---------------------------------------|

|                             |                                   |
|-----------------------------|-----------------------------------|
| <b>Common Installations</b> | Outdoor self-supporting<br>aerial |
|-----------------------------|-----------------------------------|

|                                 |                    |
|---------------------------------|--------------------|
| <b>Design and Test Criteria</b> | ANSI/ICEA S-87-640 |
|---------------------------------|--------------------|



Part Number: 048TN4-T4S80A20



Cross Section of Part Number: 048TN4-T4S80A20

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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 (OM3)  |

| Temperature Range |                                    |
|-------------------|------------------------------------|
| Storage           | -40 °C to 70 °C (-40 °F to 158 °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, Layer 1                   | Blue, Orange, Green, Brown                                                       |
| Buffer Tube Diameter                                | 2.5 mm (0.1 in)                                                                  |
| Number of Filling Elements                          | 2                                                                                |
| Tape                                                | Water-swellaable                                                                 |
| Tensile Strength Elements and/or Armoring - Layer 1 | Dielectric strength members                                                      |
| Number of Ripcords                                  | 2                                                                                |
| Outer Jacket Material                               | Polyethylene (PE)                                                                |
| Outer Jacket Color                                  | Black                                                                            |

| Mechanical Characteristics Cable |                          |
|----------------------------------|--------------------------|
| Weight                           | 92 kg/km (62 lb/1000 ft) |
| Nominal Outer Diameter           | 10.9 mm (0.43 in)        |
| Min. Bend Radius Installation    | 164 mm (6.5 in)          |
| Min. Bend Radius Operation       | 109 mm (4.3 in)          |

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## 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) |
| 15 (50)        | 1.0                  | 174 (39)           | 0.4        | 488 (110)          | 1.7         | 694 (156)          | 2.4        | 1028 (231)         |
| 30 (100)       | 1.0                  | 348 (78)           | 0.5        | 852 (191)          | 2.0         | 1179 (265)         | 2.9        | 1711 (385)         |
| 46 (150)       | 1.0                  | 522 (117)          | 0.5        | 1173 (264)         | 2.2         | 1602 (360)         | 3.2        | 2300 (517)         |
| 61 (200)       | 1.0                  | 696 (156)          | 0.5        | 1472 (331)         | 2.3         | 1989 (447)         | 3.5        | 2836 (637)         |
| 76 (250)       | 1.0                  | 870 (195)          | 0.6        | 1754 (394)         | 2.5         | 2353 (529)         | 3.7        | 3336 (750)         |
| 91 (300)       | 1.0                  | 1043 (235)         | 0.6        | 2025 (455)         | 2.6         | 2699 (607)         | 3.9        | 3810 (857)         |
| 107 (350)      | 1.0                  | 1217 (274)         | 0.6        | 2287 (514)         | 2.7         | 3032 (682)         | -          | -                  |
| 122 (400)      | 1.0                  | 1391 (313)         | 0.6        | 2542 (571)         | 2.8         | 3354 (754)         | -          | -                  |
| 137 (450)      | 1.0                  | 1565 (352)         | 0.7        | 2790 (627)         | 2.9         | 3667 (824)         | -          | -                  |
| 152 (500)      | 1.0                  | 1739 (391)         | 0.7        | 3034 (682)         | 2.9         | 3972 (893)         | -          | -                  |
| 168 (550)      | 1.0                  | 1913 (430)         | 0.7        | 3274 (736)         | -           | -                  | -          | -                  |
| 183 (600)      | 1.0                  | 2087 (469)         | 0.7        | 3509 (789)         | -           | -                  | -          | -                  |
| 200 (656)      | 1.0                  | 2282 (513)         | 0.7        | 3769 (847)         | -           | -                  | -          | -                  |

## 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                          | OM3                      |
| Fiber Code                              | T                        |
| Performance Option Code                 | 80                       |
| Wavelengths                             | 850 nm / 1300 nm         |
| Maximum Attenuation                     | 3.0 dB/km / 1.0 dB/km    |
| Serial 1 Gigabit Ethernet               | 1000 m / 600 m           |
| Serial 10 Gigabit Ethernet              | 300 m / -                |
| Min. Overfilled Launch (OFL) Bandwidth  | 1500 MHz*km / 500 MHz*km |
| Minimum Effective Modal Bandwidth (EMB) | 2000 MHz*km / -          |

\* Meets 0.75 ns optical skew when used in all Corning Plug and Play™/EDGE™ systems solutions.

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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## Ordering Information

|                     |                                                                                  |
|---------------------|----------------------------------------------------------------------------------|
| Part Number         | 048TN4-T4S80A20                                                                  |
| Product Description | SOLO® ADSS Short-Span, Loose Tube, Gel-Filled Cable, 48 F, 50 µm multimode (OM3) |
| EAN Code            | 4056418149325                                                                    |



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