288 F, 50 µm multimode (OM4)

## CORNING

Corning ALTOS<sup>®</sup> Lite<sup>™</sup> gel-free, single-jacket, singlearmored cables are designed for campus backbones in direct-buried installations. The loose tube design provides stable and highly reliable transmission parameters for a variety of voice, data, video and imaging applications. These cables also provide high-fiber density within a given cable diameter while allowing flexibility to suit many system configurations.

The single armored construction provides additional crush and rodent protection with a high-strength ripcord under the armor for easy stripping. Gel-free means the cables are fully waterblocked using craft-friendly, water -swellable materials which make cable access simple and require no clean up. The flexible, craft-friendly buffer tubes are easy to route in closures, and the SZ-stranded, loose tube design isolates fibers from installation and environmental rigors while allowing easy mid-span access. These cables have a medium density polyethylene jacket that is rugged, durable and easy to strip.

### Features and Benefits

#### Gel-free waterblocking technology

Craft-friendly cable preparation

#### Medium-density polyethylene jacket

Rugged, durable and easy to strip (while providing superior protection against UV radiation, fungus, abrasion and other environmental factors)

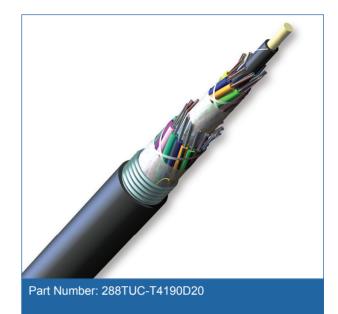
#### Corrugated steel tape armor

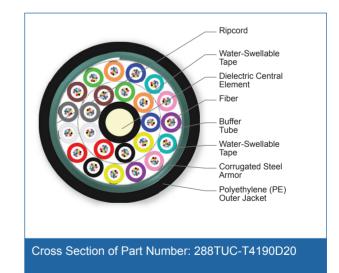
Provides rodent resistance for direct-buried applications

#### Standards

| Common Installations | Outdoor lashed aerial, duct<br>and direct-buried; indoor<br>when installed according to<br>National Electrical Code <sup>®</sup><br>(NEC <sup>®</sup> ) Article 770 |
|----------------------|---|
|----------------------|---|

Design and Test Criteria ANSI/ICEA S-87-640







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## Specifications

| General Specifications |                             |
|------------------------|-----------------------------|
| Environment            | Outdoor                     |
| Application            | Aerial, Direct Buried, Duct |
| Cable Type             | Loose Tube                  |
| Product Type           | Armored                     |
| Fiber Category         | 50 µm MM (OM4)              |

| 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   | 288   |
| Fiber Coloring                                      | Blue, Orange, Green, Brown, Slate, White, Red, Black, Yellow, Violet, Rose, Aqua                                    |
| Fibers per Tube                                     | 12  |
| Number of Tube Positions                            | 24  |
| Number of Active Tubes                              | 24  |
| Buffer Tube Color Coding, Layer 1                   | Blue, Orange, Green, Brown, Slate, White, Red, Black, Yellow  |
| Buffer Tube Diameter                                | 2.5 mm (0.1 in)   |
| Tape, Layer 1                                       | Water-swellable   |
| Buffer Tube Color Coding, Layer 2                   | Violet, Rose, Aqua, Blue*, Orange*, Green*, Brown*, Slate*,<br>White*, Red*, Black*, Yellow*, Violet*, Rose*, Aqua* |
| Tape, Layer 2                                       |   |
| Number of Ripcords                                  | 2   |
| Tensile Strength Elements and/or Armoring - Layer 1 | Corrugated steel tape armor   |
| Outer Jacket Material                               | Polyethylene (PE)   |
| Outer Jacket Color                                  | Black   |
| Maximum Fibers per Tube                             | 12  |

Notes: Tubes 13 to 24 include a co-extruded stripe that is white for the black tube and black for all other tube colors.



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| Mechanical Characteristics Cable  |                            |
|-----------------------------------|----------------------------|
| Max. Tensile Strength, Short-Term | 2700 N (600 lbf)           |
| Max. Tensile Strength, Long-Term  | 890 N (200 lbf)            |
| Weight                            | 293 kg/km (196 lb/1000 ft) |
| Nominal Outer Diameter            | 20 mm (0.79 in)            |
| Min. Bend Radius Installation     | 300 mm (11.8 in)           |
| Min. Bend Radius Operation        | 200 mm (7.9 in)            |

| Chemical Characteristics |   |
|--------------------------|---|
| RoHS                     | Free of hazardous substances according to RoHS 2002/95/<br>EG |

### **Fiber Specifications**

| Optical Characteristics (cabled)        |                          |
|---|--------------------------|
| Fiber Core Diameter                     | 50 µm                    |
| Fiber Category                          | OM4                      |
| Fiber Code                              | Т                        |
| Performance Option Code                 | 90                       |
| Wavelengths                             | 850 nm / 1300 nm         |
| Maximum Attenuation                     | 3.0 dB/km / 1.0 dB/km    |
| Serial 1 Gigabit Ethernet               | 1100 m / 600 m           |
| Serial 10 Gigabit Ethernet              | 550 m / -                |
| Min. Overfilled Launch (OFL) Bandwidth  | 3500 MHz*km / 500 MHz*km |
| Minimum Effective Modal Bandwidth (EMB) | 4700 MHz*km / -          |

\* Assumes 1.0 dB maximum total connector/splice loss.

\* Meets 0.75 ns optical skew when used in all Corning Plug and Play™/EDGE<sup>™</sup> 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         | 288TUC-T4190D20  |
|---------------------|--|
| Product Description | ALTOS <sup>®</sup> Lite™ Loose Tube, Gel-Free, Single-Jacket, Single-<br>Armored Cable, 288 F, 50 µm multimode (OM4) |
| EAN Code            | 4056418165448  |



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