# ALTOS ${ }^{\circledR}$ Gel-Free, Triple-Jacket, DoubleArmored Cables, 12-216 Fibers, Enhanced 

36 F, $50 \mu \mathrm{~m}$ multimode (OM2)

Corning ALTOS ${ }^{\circledR}$ gel-free triple-jacket, double-armored cables are rugged, armored cables designed for direct -buried installations. The loose tube design provides stable performance over a wide temperature range and is compatible with any telecommunications-grade optical fiber.

## Features and Benefits

Three jacket layers and two steel tape armor layers Provide superior rodent resistance for direct-buried applications

Flexible, craft-friendly buffer tubes Facilitate easy routing in closures
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)

Exceeds the RDUP requirements for mid-span buffer tube slack storage
Provides flexibility for mid-span access applications

## Standards

| Approvals and Listings | USDA Rural Development <br> Programs |
| :--- | :--- |
| Design and Test Criteria | ANSI/ICEA S-87-640 |



Part Number: 036TU6-T4131D20


Cross Section of Part Number: 036TU6-T4131D20

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## Specifications

## General Specifications

| Environment | Outdoor |
| :--- | :--- |
| Application | Direct Buried |
| Cable Type | Loose Tube |
| Product Type | Armored |
| Fiber Category | $50 \mu \mathrm{~m}$ MM (OM2) |

Temperature Range

| Storage | $-40^{\circ} \mathrm{C}$ to $70^{\circ} \mathrm{C}\left(-40^{\circ} \mathrm{F}\right.$ to $\left.158{ }^{\circ} \mathrm{F}\right)$ |
| :--- | :--- |
| Installation | $-30^{\circ} \mathrm{C}$ to $70^{\circ} \mathrm{C}\left(-22^{\circ} \mathrm{F}\right.$ to $\left.158{ }^{\circ} \mathrm{F}\right)$ |
| Operation | $-40^{\circ} \mathrm{C}$ to $70^{\circ} \mathrm{C}\left(-40^{\circ} \mathrm{F}\right.$ to $\left.158^{\circ} \mathrm{F}\right)$ |

## Cable Design

| Central Element | Dielectric |
| :--- | :--- |
| Fiber Count | 36 |
| Fiber Coloring | Blue, Orange, Green, Brown, Slate, White, Red, Black, Yellow, <br> Violet, Rose, Aqua |
| Fibers per Tube | 12 |
| Number of Tube Positions | 6 |
| Number of Active Tubes | 3 |
| Buffer Tube Color Coding | Blue, Orange, Green |
| Buffer Tube Diameter | 2.5 mm (0.1 in) |
| Tape | Water-swellable |
| Number of Filling Elements | 3 |
| Inner Jacket Material | Polyethylene (PE) |
| Tape, Layer 2 | Water-swellable |
| Tensile Strength Elements and/or Armoring - Layer 1 | Corrugated steel tape armor |
| Intermediate Jacket Material | Polyethylene (PE) |
| Tape, Layer 3 | Water-swellable |
| Number of Ripcords | 5 |
| Tensile Strength Elements and/or Armoring - Layer 2 | Corrugated steel tape armor |
| Outer Jacket Material | Polyethylene (PE) |
| Outer Jacket Color | Black |
| Maximum Fibers per Tube | 12 |

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## Mechanical Characteristics Cable

| Max. Tensile Strength, Short-Term | $2700 \mathrm{~N}(600 \mathrm{lbf})$ |
| :--- | :--- |
| Max. Tensile Strength, Long-Term | $890 \mathrm{~N} \mathrm{(200} \mathrm{lbf})$ |
| Weight | $310 \mathrm{~kg} / \mathrm{km}(208 \mathrm{lb} / 1000 \mathrm{ft})$ |
| Nominal Outer Diameter | $18.3 \mathrm{~mm}(0.72 \mathrm{in})$ |
| Min. Bend Radius Installation | $275 \mathrm{~mm}(10.8 \mathrm{in})$ |
| Min. Bend Radius Operation | $183 \mathrm{~mm}(7.2 \mathrm{in})$ |

## Chemical Characteristics

## Fiber Specifications

## Optical Characteristics (cabled)

| Fiber Core Diameter | $50 \mu \mathrm{~m}$ |
| :---: | :---: |
| Fiber Category | OM2 |
| Fiber Code | T |
| Performance Option Code | 31 |
| Wavelengths | $850 \mathrm{~nm} / 1300 \mathrm{~nm}$ |
| Maximum Attenuation | $3.0 \mathrm{~dB} / \mathrm{km} / 1.0 \mathrm{~dB} / \mathrm{km}$ |
| Serial 1 Gigabit Ethernet | $750 \mathrm{~m} / 500 \mathrm{~m}$ |
| Serial 10 Gigabit Ethernet | $150 \mathrm{~m} /$ - |
| Min. Overfilled Launch (OFL) Bandwidth | $700 \mathrm{MHz*}$ km / $500 \mathrm{MHz*}$ *m |
| Minimum Effective Modal Bandwidth (EMB) | $950 \mathrm{MHz*}$ *m / - |

Notes: 1) $50 \mu \mathrm{~m}$ multimode fiber macrobend loss $\leq 0.2 \mathrm{~dB}$ 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 | 036TU6-T4131D20 |
| :--- | :--- |
| Product Description | ALTOS ${ }^{\circledR}$ Loose Tube, Gel-Free, Triple-Jacket, Double- |
| Armored Cable, 36 F, 50 $\mu \mathrm{m}$ multimode (OM2) |  |

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## Notes

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