

# ALTOS<sup>®</sup> Low-Temperature, Loose Tube, Gel-Free, Double-Jacket, Single-Armored Cable

192 F, 50 μm multimode (OM2)

CORNING

Corning ALTOS<sup>®</sup> gel-free, low-temperature cables are designed for extreme cold temperature environments with an extended operating range of -50° to +70°C (-58° to +158°F). Armored jackets allow for duct, direct-buried or aerial (lashed) installation.

## Features and Benefits

**Extended operating temperature range of -50° to +70°C (-58° to +158°F)**

Allows for operation at extreme low temperatures

**Flexible, craft-friendly buffer tubes**

Facilitate easy routing in closures

**Gel-free waterblocking technology**

Craft-friendly cable preparation

**Dielectric central strength member**

No preferential bend and requires no bonding or grounding

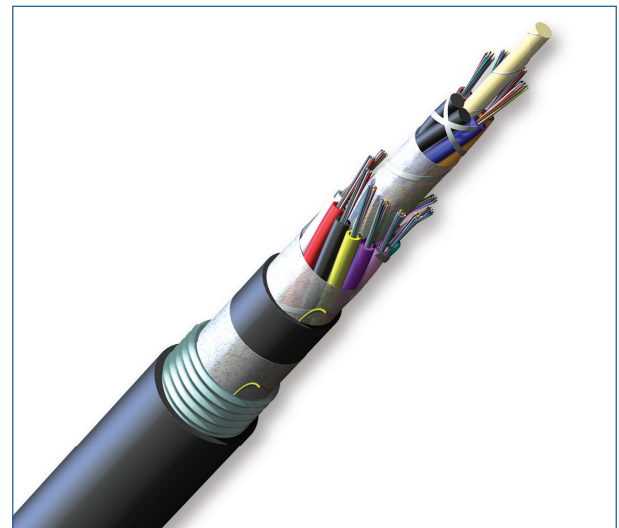
**Medium-density polyethylene jacket**

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

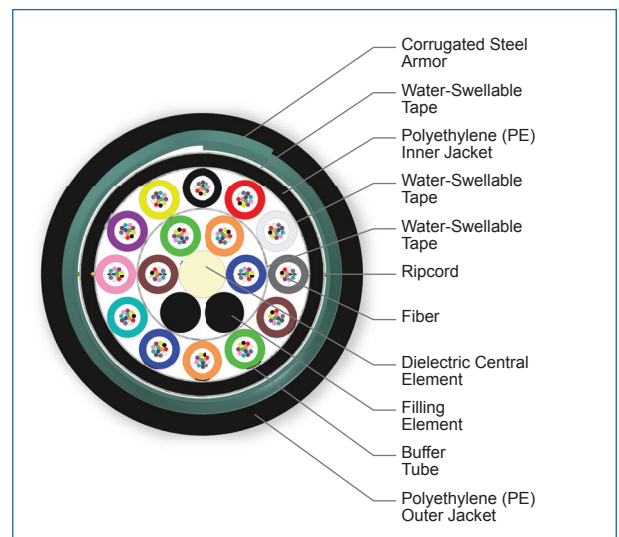
## Standards

**Approvals and Listings**     USDA Rural Development Programs

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



Part Number: 192TU5-T4131F20



Cross Section of Part Number: 192TU5-T4131F20

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## Specifications

### General Specifications

Environment	Outdoor
Application	Aerial, Direct Buried
Cable Type	Loose Tube
Product Type	Armored
Fiber Category	50 µm MM (OM2)

### Temperature Range

Storage	-50 °C to 70 °C (-58 °F to 158 °F)
Installation	-30 °C to 70 °C (-22 °F to 158 °F)
Operation	-50 °C to 70 °C (-58 °F to 158 °F)

### Cable Design

Central Element	Dielectric
Fiber Count	192
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	16
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
Buffer Tube Color Coding, Layer 2	Slate, White, Red, Black, Yellow, Violet, Rose, Aqua, Blue*, Orange*, Green*, Brown*
Tape, Layer 2	Water-swellaable
Inner Jacket Material	Polyethylene (PE)
Tape, Layer 3	Water-swellaable
Tensile Strength Elements and/or Armoring - Layer 1	Corrugated steel tape armor
Number of Ripcords	3
Outer Jacket Material	Polyethylene (PE)
Outer Jacket Color	Black

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	289 kg/km (194 lb/1000 ft)
Nominal Outer Diameter	19.9 mm (0.78 in)
Min. Bend Radius Installation	299 mm (11.8 in)
Min. Bend Radius Operation	199 mm (7.8 in)

## Chemical Characteristics

RoHS	Free of hazardous substances according to RoHS 2011/65/EU
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## 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
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	192TU5-T4131F20
Product Description	ALTOS® Low-Temperature, Loose Tube, Gel-Free, Double-Jacket, Single-Armored Cable, 192 F, 50 µm multimode (OM2)
EAN Code	4056418166773

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The CORNING logo is a blue square with the word "CORNING" in white, uppercase, sans-serif font centered inside.

## Notes



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