

ALTOS® gel-free, double-jacket, single-armored cables are rugged, armored cables designed for direct-buried installation while suitable for duct and aerial (lashed) installation. The loose tube design provides stable performance over a wide temperature range and is compatible with any telecommunications-grade optical fiber

### **Features and Benefits**

### Gel-free waterblocking technology

Craft-friendly cable preparation

#### Corrugated steel tape armor

Provides rodent resistance for direct-buried applications

#### Flexible, craft-friendly buffer tubes

Facilitate easy routing in closures

### SZ-stranded, loose tube design

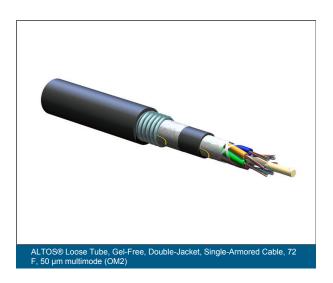
Isolates fibers from installation and environmental rigors and facilitates mid-span access

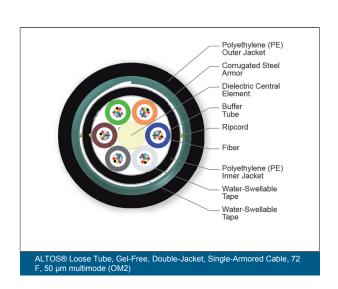
### Dielectric central strength member

No preferential bend and requires no bonding or grounding

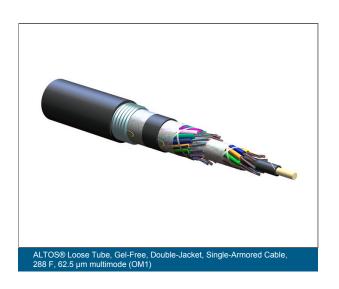
### Polyethylene jacket

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









Standards	
RoHS	Free of hazardous substances according to RoHS 2011/65/EU
Approvals and Listings	USDA Rural Development Programs
Design and Test Criteria	Telcordia GR-20, ICEA-640

### **Specifications**

General Specifications	
Environment	Outdoor
Product Type	Armored
Cable Type	Loose Tube

Temperature Range		
Temperature Range, Storage	-40 °C - 70 °C (-40 °F - 158 °F)	
Temperature Range, Installation	-30 °C - 70 °C (-22 °F - 158 °F)	
Temperature Range, Operation	-40 °C - 70 °C (-40 °F - 158 °F)	

Family Spec Sheet NAFTA\_AEN



Temperature Range	
Notes	Corning recommends storing cable in a proper temperature environment prior to installation to allow the cable temperature to meet installation temperature range specifications for best installation results.

Design Characteristics Cable				
Fiber Count	Fibers per Tube	Number of Tube Positions	Number of Active Tubes	Buffer Tube Diameter
12 - 72	12	6	1 - 6	2.5 mm (0.1 in)
96	12	8	8	2.5 mm (0.1 in)
144	12	12	12	2.5 mm (0.1 in)
192 - 216	12	18	16 - 18	2.5 mm (0.1 in)
288	12	24	24	2.5 mm (0.1 in)

### **Transmission Performance**

Multimode		
Fiber Category	OM1	OM2
Fiber Code	К	Т
Performance Option Code	30	31
Fiber Core Diameter	62.5 µm	50 μm
Wavelengths	850 nm / 1300 nm	850 nm / 1300 nm
Maximum Attenuation	3.4 dB/km / 1.0 dB/km	3.0 dB/km / 1.0 dB/km
Serial 1 Gigabit Ethernet	300 MHz*km / 550 MHz*km	750 MHz*km / 500 MHz*km
Serial 10 Gigabit Ethernet	33 MHz*km/ -	150 MHz*km / -
Min. Overfilled Launch (OFL) Bandwidth	200 MHz*km / 500 MHz*km	700 MHz*km / 500 MHz*km
Minimum Effective Modal Bandwidth (EMB)	220 MHz*km / -	950 MHz*km / -



### **Transmission Performance**

Single-mode		
Performance Option Code	01	
Fiber Category	G.652.D	
Fiber Name	Single-mode (OS2)	
Wavelengths	1310 nm / 1383 nm / 1550 nm	
Fiber Code	E	
Maximum Attenuation	0.4 dB/km / 0.4 dB/km / 0.3 dB/km	



- Select fiber count.
  Standard offerings:
  012-288 (Increments of 12)
- 2 Select fiber code.
  - K = 62.5 µm multimode (OM1)
  - T = 50  $\mu$ m multimode (OM2/OM3/OM4)
  - E = Single-mode (G.652.D)
  - Z = Single-mode (G.652.D/ G.657.A1) SMF-28® Ultra fiber
  - P = Single-mode (G.652) SMF-28® ULL
  - F = Single-mode (G.655) LEAF®
  - $D = TXF^{TM}$  Single-mode (G.654.E)
- 3 Defines cable type.
  - U = ALTOS® Gel-Free Cable

- 4 Defines outer jacket.
  - 5 = Armor Lite™ Cable
- 5 Select fiber placement.
  - T = 12 fibers/buffer tube (standard)
  - 6 = 6 fibers/buffer tube See Note 1.
- 6 Select length markings.
  - 3 = Markings in meters
  - 4 = Markings in feet (standard)
- Defines tensile strength.

  1 = 2700 N/600 lbf (standard)

- 8 Select performance option code.
  - 30 = 62.5 μm multimode (OM1)
  - 31 = 50 µm multimode (OM2)
  - 80 = 50 µm multimode (OM3)
  - 90 = 50 µm multimode (OM4)
  - 01 = Single-mode (OS2) (Max. attenuation 0.4/0.4/0.3 dB/km)
  - 00 = Single-mode (OS2) (Max. attenuation 0.35/0.35/0.25 dB/km)
  - 22 = Single-mode (OS2)
  - (Max. attenuation 0.34/0.34/0.22 dB/km)
  - 19 = Single-mode (Ultra Low-Loss) (Max. attenuation 0.33/–/0.19 dB/km)
  - 01 = Single-mode (TXF) (Max. attenuation -/-/0.20 dB/km)
  - 01 = Single-mode NZDSF\* (Max. attenuation -/-/0.25 dB/km)
  - \*Non-Zero Disperson-Shifted Single-mode Fiber
- Defines cable type.
- D = ALTOS® Gel-Free Cable
- 10 Defines special requirements. 20 = No special requirements

Cable outer diameter may change. Example: 48 F cable with 6 fibers per tube will require 8 active buffer and have an OD like a standard 96 F cable.





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