

# ALTOS® All-Dielectric Gel-Free Cables, 6-432 Fibers

CORNING

## Features and Benefits

### Fully waterblocked loose tube, gel-free design

Simple access and no clean up

### Polyethylene jacket

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

### All-dielectric cable construction

Requires no grounding or bonding

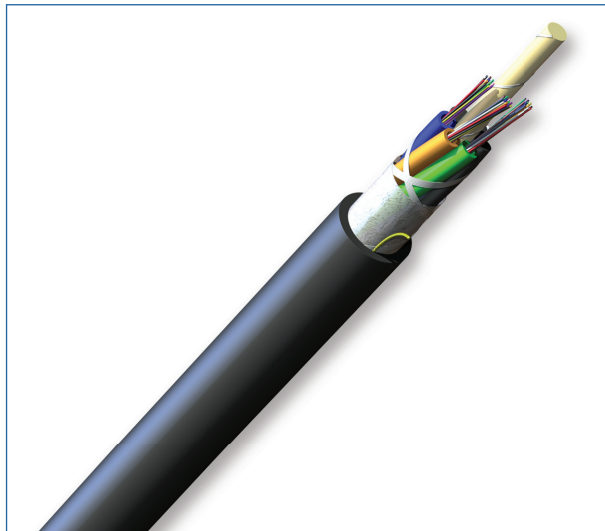
### Available in 62.5 $\mu\text{m}$ , 50 $\mu\text{m}$ , single-mode (including bend-insensitive and non-zero dispersion-shifted (NZ-DSF) fiber options) and hybrid versions

Ready for any application including Gigabit Ethernet and 10 Gigabit Ethernet

Corning ALTOS® all-dielectric gel-free cables are designed for outdoor and limited indoor use for backbones in lashed aerial and duct installations. The loose tube gel-free design is fully waterblocked using craft-friendly, water-swallowable materials, which means cable access is simple and no clean up is required. 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. The all-dielectric cable construction requires no bonding or grounding, and these cables have a polyethylene jacket that is rugged, durable and easy to strip.

## Standards

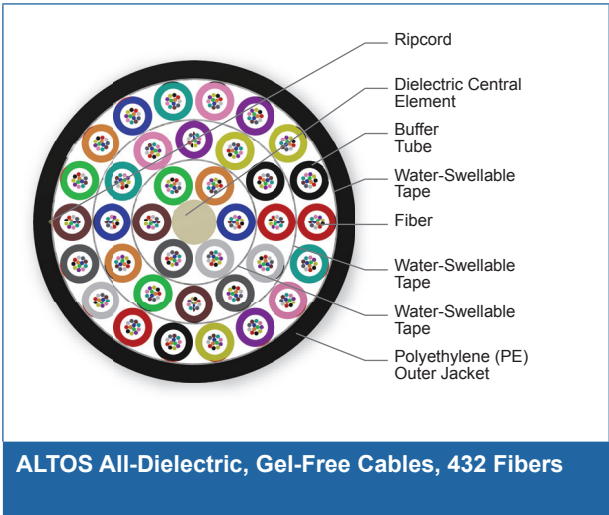
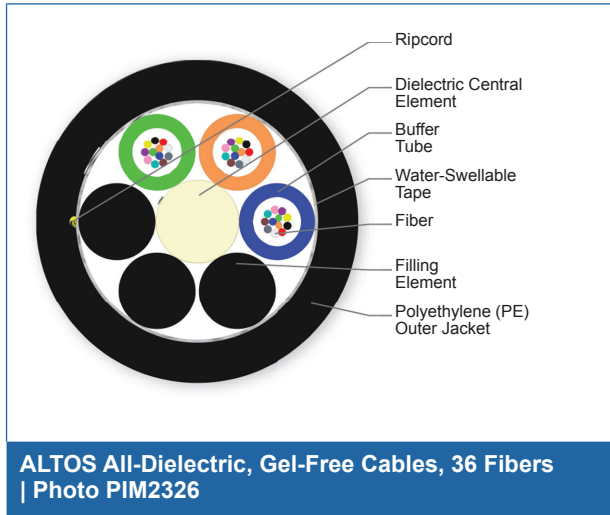
Common Installations	Outdoor lashed aerial and duct; indoor when installed according to National Electrical Code® (NEC®) Article 770
Design and Test Criteria	ANSI/ICEA S-87-640, Telcordia GR-20, RDUP PE-90



ALTOS All-Dielectric, Gel-Free Cables, 36 Fibers  
| Photo PIM2426

CORNING

# ALTOS® All-Dielectric Gel-Free Cables, 6-432 Fibers



## Specifications

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)

\* Note: 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.

Mechanical Characteristics Cable	
Max. Tensile Strength, Long-Term	200 lbf (890 N)
Max. Tensile Strength, Short-Term	2700 N (600 lbf)

Fiber Count	Number of Tube Positions	Number of Active Tubes	Weight	Nominal Outer Diameter	Min. Bend Radius Installation	Min. Bend Radius Operation
6 - 72	6	1 - 6	73 kg/km (49 lb/1000 ft)	10.5 mm (0.41 in)	158 mm (6.2 in)	105 mm (4.1 in)
84 - 96	8	7 - 8	98 kg/km (66 lb/1000 ft)	12.2 mm (0.48 in)	183 mm (7.2 in)	122 mm (4.8 in)
108 - 144	12	9 - 12	162 kg/km (109 lb/1000 ft)	15.8 mm (0.62 in)	237 mm (9.3 in)	158 mm (6.2 in)
156 - 216	18	13 - 18	147 kg/km (99 lb/1000 ft)	16 mm (0.63 in)	240 mm (9.4 in)	160 mm (6.3 in)

# ALTOS® All-Dielectric Gel-Free Cables, 6-432 Fibers

CORNING

Fiber Count	Number of Tube Positions	Number of Active Tubes	Weight	Nominal Outer Diameter	Min. Bend Radius Installation	Min. Bend Radius Operation
228 - 288	24	19 - 24	196 kg/km (131 lb/1000 ft)	18.2 mm (0.72 in)	273 mm (10.7 in)	182 mm (7.2 in)
360 - 432	36	30 - 36	241 kg/km (162 lb/1000 ft)	21.2 mm (0.83 in)	318 mm (12.5 in)	212 mm (8.3 in)

## Chemical Characteristics

RoHS	Free of hazardous substances according to RoHS 2011/65/EU
------	---

## Transmission Performance

Multimode				
Fiber Core Diameter (µm)	62.5	50	50	50
Fiber Category	OM1	OM2	OM3	OM4
Fiber Code	K	T	T	T
Performance Option Code	30	31	80	90
Wavelengths (nm)	850/1300	850/1300	850/1300	850/1300
Maximum Attenuation (dB/km)	3.4/1.0	3.0/1.0	3.0/1.0	3.0/1.0
Serial 1 Gigabit Ethernet (m)	300/550	750/500	1000/600	1100/600
Serial 10 Gigabit Ethernet (m)	33/-	150/-	300/-	550/-
Min. Overfilled Launch (OFL) Bandwidth (MHz*km)	200/500	700/500	1500/500	3500/500
Minimum Effective Modal Bandwidth (EMB) (MHz*km)	220/-	950/-	2000/-	4700/-

# ALTOS® All-Dielectric Gel-Free Cables, 6-432 Fibers

CORNING

Single-mode					
Fiber Name	SMF-28e+® LL	SMF-28® Ultra fiber**	Single-mode (OS2)	Single-mode (OS2)	LEAF® fiber
Fiber Category	G.652.D	G.652.D/G.657.A1	G.652.D	G.652.D	G.655
Fiber Code	L	Z	E	E	F
Performance Option Code	22	22	00	01	01
Wavelengths (nm)	1310/1383/1550	1310/1383/1550	1310/1383/1550	1310/1383/1550	1310/1383/1550
Maximum Attenuation (dB/km)	0.34/0.34/0.22	0.34/0.34/0.22	0.35/0.35/0.25	0.4/0.4/0.3	-/-/0.25
Typical Attenuation* (dB/km)	0.32/0.32/0.18	0.32/0.32/0.18	-	-	-/-/0.19
Fiber Name	SMF-28® ULL	TXF™ fiber			
Fiber Category	G.652	G.654.E			
Fiber Code	P	D			
Performance Option Code	19	01			
Wavelengths (nm)	1310/1383/1550	1310/1383/1550			
Maximum Attenuation (dB/km)	0.33/-/0.19	-/-/0.20			
Typical Attenuation* (dB/km)	0.31/-/0.17	-/-/0.18			

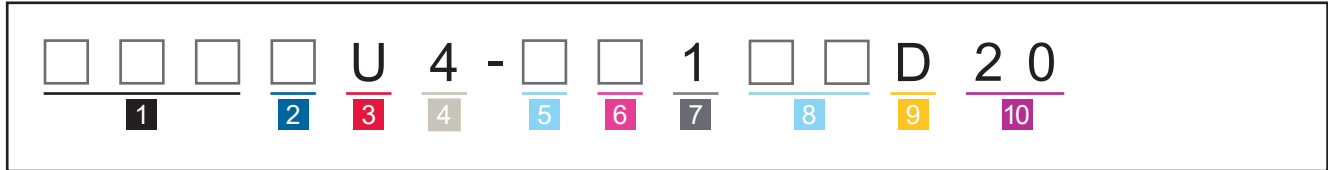
\* For more information on typical attenuation please see the Corning whitepaper at [http://csmedia.corning.com/opcomm//Resource\\_Documents/whitepapers\\_rl/LAN-1863-AEN.pdf](http://csmedia.corning.com/opcomm//Resource_Documents/whitepapers_rl/LAN-1863-AEN.pdf)

\*\* SMF-28® Ultra fiber delivers up to 10x better macrobend loss performance compared to the G.652.D standard and up to 33 percent better macrobend loss performance than the G.657.A1 standard for 10mm radii bends.

# ALTOS® All-Dielectric Gel-Free Cables, 6-432 Fibers

CORNING

Ordering Information | Note: Contact Customer Care at 1-800-743-2675 for other options.



- 1** Select fiber count.  
006-288  
360-432 (SMF-28® Ultra fiber only)
- 2** Select fiber code.  
K = 62.5 μm multimode (OM1)  
T = 50 μm multimode (OM2/OM3/OM4)  
E = Single-mode (G.652.D)  
L = Single-mode (G.652.D) SMF-28e+® LL  
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™ Single-mode (G.654.E)

- 3** Defines cable type.  
U = ALTOS® Loose Tube Cable with 2.5 mm buffer tubes

- 4** Defines outer jacket.  
4 = All-dielectric
- 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)
- 7** 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 Dispersion-Shifted Single-mode Fiber*

- 9** Defines cable type.  
D = Gel-free cable
- 10** Defines special requirements.  
20 = No special requirements

1) 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.



Corning Optical Communications LLC • PO Box 489 • Hickory, NC 28603-0489 USA

800-743-2675 • FAX: 828-325-5060 • International: +1-828-901-5000 • [www.corning.com/opcomm](http://www.corning.com/opcomm)

A complete listing of the trademarks of Corning Optical Communications is available at [www.corning.com/opcomm/trademarks](http://www.corning.com/opcomm/trademarks). All other trademarks are the properties of their respective owners. Corning Optical Communications is ISO 9001 certified.

© 2018 Corning Optical Communications. All rights reserved.

CORNING