ALTOS® All-Dielectric Gel-Free Cables

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Features and Benefits

Fully waterblocked loose tube gel-free design
Simple access and no clean up

Medium-density polyethylene jacket
Rugged, durable and easy to strip while providing superior protection against UV radiation, fungus, abrasion and other environmental factors

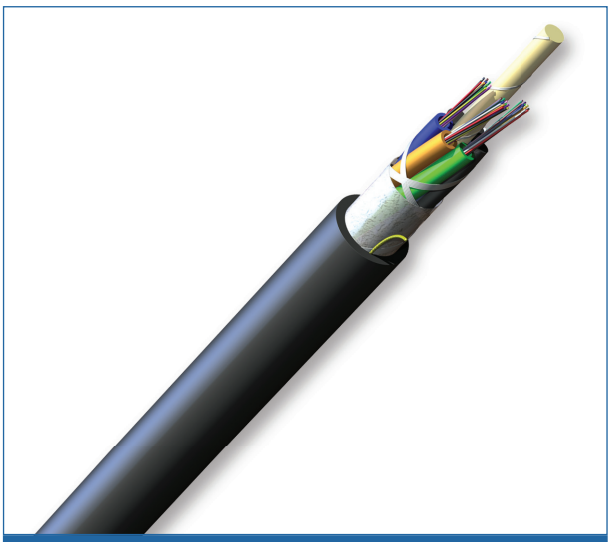
All-dielectric cable construction
Requires no grounding or bonding

Available in 62.5 µm, 50 µm, single-mode (including bend-insensitive and non-zero dispersion shifted fiber (NZ-DSF) options) and hybrid versions
Ready for any application including Gigabit Ethernet and 10 Gigabit Ethernet

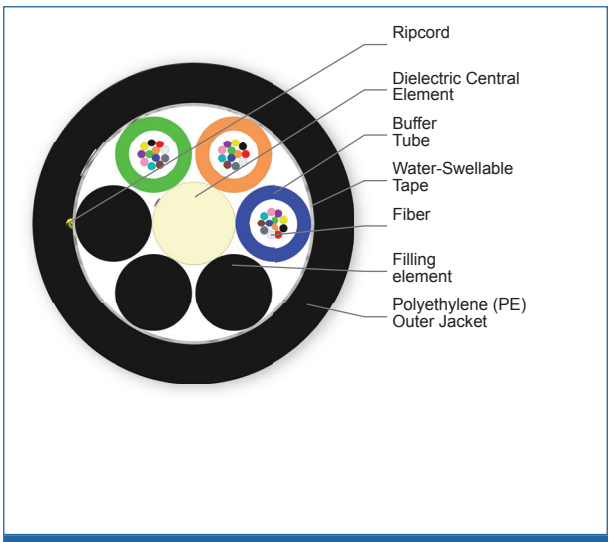
Corning Cable Systems ALTOS® All-Dielectric Gel-Free Cables are designed for outdoor and limited indoor use for campus backbones in lashed aerial and duct installations. The loose tube gel-free design is fully waterblocked using craft-friendly, water-swellable materials, which means cable access is simple 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 midspan access. The all-dielectric cable construction requires no bonding or grounding and these cables have a medium-density 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



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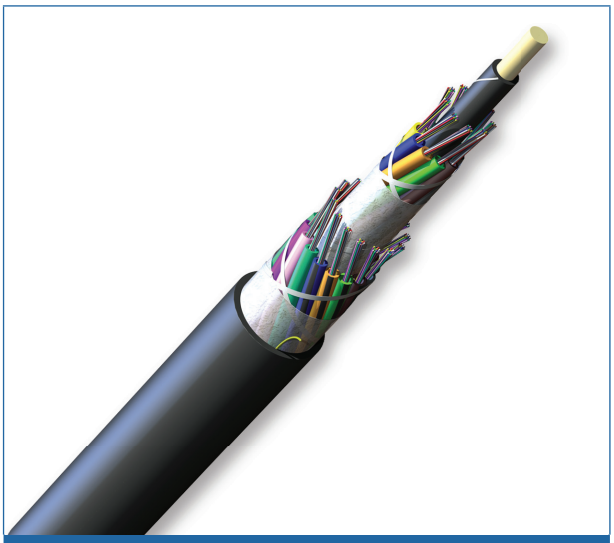
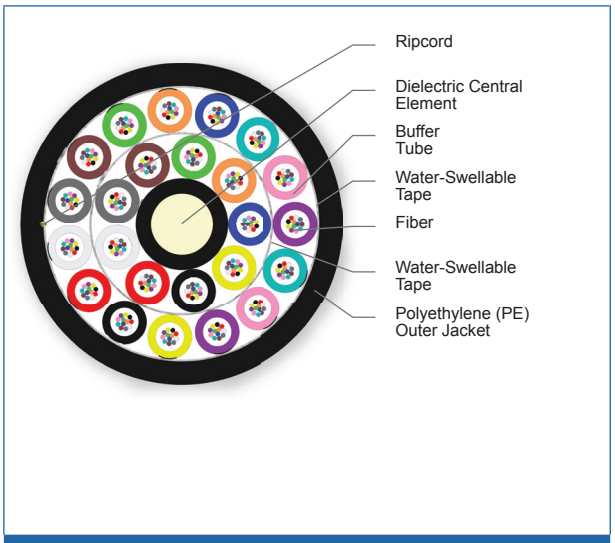


ALTOS® All-Dielectric, Gel-Free Cables, 288-Fibers



ALTOS® All-Dielectric, Gel-Free Cables, 288-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)

** Corning Cable Systems 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 Strengths, Short-Term	2700 N (600 lbf)
Max. Tensile Strengths, Long-Term	890 N (200 lbf)

Fiber Count	Product Type		Number of Tube	Number of Active Tubes	Weight	Nominal Outer Diameter	Min. Bend Radius Installation	Min. Bend Radius Operation
2 - 72	Dielectric	12	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	Dielectric	12	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	Dielectric	12	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)

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Fiber Count	Product Type		Number of Tube	Number of Active Tubes	Weight	Nominal Outer Diameter	Min. Bend Radius Installation	Min. Bend Radius Operation
156 - 216	Dielectric	12	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)
228 - 288	Dielectric	12	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)

Chemical Characteristics	
RoHS	Free of hazardous substances according to RoHS 2002/95/EG

Transmission Performance

Fiber Type Fiber Core Diameter (µm)	Multimode 62.5	Multimode 50	Multimode 50	Multimode 50	Single-mode 8.2	Single-mode 8.2
Fiber Category	OM1	OM2	OM3	OM4	OS2	OS2
Fiber Code	K	T	T	T	E	E
Performance Option Code	30	31	80	90	01	00
Wavelengths (nm)	850 / 1300	850 / 1300	850 / 1300	850 / 1300	1310 / 1383 / 1550	1310 / 1383 / 1550
Maximum Attenuation (dB/km)	3.4 / 1.0	3.0 / 1.0	3.0 / 1.0	3.0 / 1.0	0.4 / 0.4 / 0.3	0.35 / 0.35 / 0.25
Serial 1 Gigabit Ethernet (m)	300 / 550	750 / 600	1000 / 600	1100 / 600	5000 / - / -	5000 / - / -
Serial 10 Gigabit Ethernet (m)	33 / -	150 / -	300 / -	550 / -	10000 / - / 40000	10000 / - / 40000
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 / -		

** Single-mode (OS2) fiber is ITU-T G.652.D compliant.*
** OM4 Multimode fiber 10 Gigabit Ethernet distance assumes 1.0 dB maximum total connector/splice loss.*

Notes:
1) *Improved attenuation and bandwidth options available.*
2) *Bend-insensitive single-mode fibers available on request.*
3) *Contact a Corning Cable Systems Customer Care Representative for additional information.*
4) *50 µm multimode fiber macrobend loss ≤ 0.2 dB at 850 nm for two turns around 7.5 mm radius mandrel.*

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Ordering Information | Contact Customer Care at 1-800-743-2671 for other options.

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1	2	3	4		5	6	7	8	9	10

1 Select fiber count.
Standard offerings:
002 - 288

2 Select fiber code.
K = 62.5 µm multimode, OM1
T = 50 µm multimode, OM2, OM3, OM4
E = Single-mode, OS2 SMF-28e+®

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

4 Defines outer jacket.
4 = All-Dielectric

5 Defines fiber placement.
T = 12 fibers/buffer tube (standard)

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)

9 Defines cable type.
D = Gel-Free Cable

10 Defines special requirements.
20 = No special requirements

RoHS COMPLIANT

Corning Cable Systems LLC • PO Box 489 • Hickory, NC 28603-0489 USA
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