

# Class 3 Limited Power Cables, Tight-Buffered, Indoor, Plenum

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## Features and Benefits

### 2-in-1 composite cable design

One cable meets power and signal needs

### 1, 2, 4 or 6 ClearCurve® ZBL or SMF-28® Ultra fibers

Reliable performance in challenging routes

### 16, 20, 22 or 24 AWG copper conductors

Power transmission with flexibility in design

### Common Installations

Compliant with ICEA S-83-596 (compliant at tensile loads listed in the specifications table)

### Conductor color code

Same as Telcordia color code

### Mutual capacitance between adjacent conductors

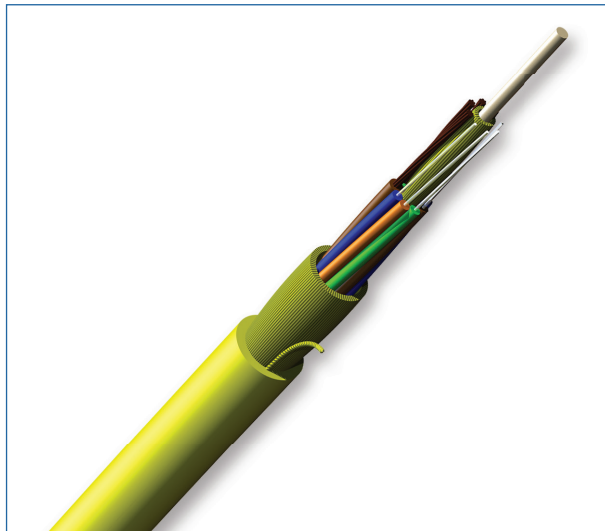
<50 pF/ft

### Conductor insulation material and thickness

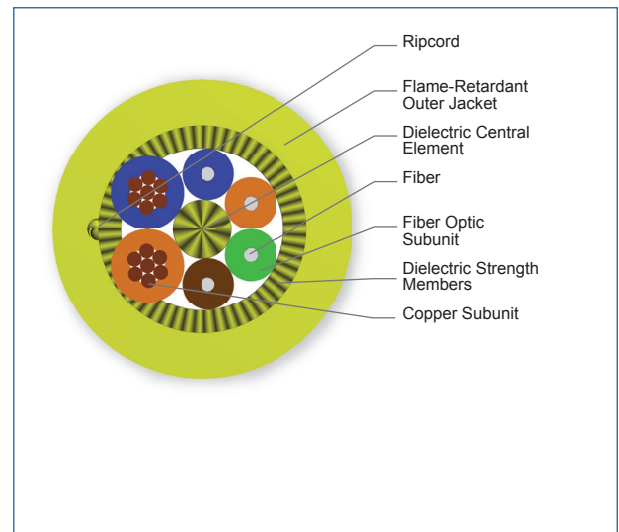
PVC insulation, thickness varies depending on AWG size

Corning's Class 3 Limited Power Cables provide the ultimate solution for indoor remote powering of distributed antenna systems, optical networks, small cells and more. The design uses fiber and linear laid copper conductors rated at 300 VAC. These cables are suitable for use with Digital Electricity™ and +/-190VDC installations in accordance with NEC Article 830.15. They may also be used with low-voltage installations in accordance with NEC Article 725.

Corning's Class 3 Limited Power Cables also provide a time-and cost saving solution for installations requiring remotely powered equipment. By integrating linear laid copper and tight-buffered fiber in one cable, CL3 cables eliminate the need to install separate power and fiber cables. This saves installation time, labor costs and duct or tray space. This compact and versatile design is available with an interlocking armor option for additional protection where conduit may not be feasible.



Class 3 Limited Power Cables for Indoor Plenum, 4-Fibers



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## Standards

**Approvals and Listings** CSA certified listed to UL 444, CSA C22.2, No. 214  
NEC Article 725 Class 3 (CL3P)

**Design and Test Criteria** ICEA S-120-742, UL 13, 300 VAC, 80 C

## Specifications

Temperature Range	
Storage	-40 °C to 70 °C (-40 °F to 158 °F)
Installation	0 °C to 60 °C (32 °F to 140 °F)
Operation	0 °C to 70 °C (32 °F to 158 °F)

Fiber Count	Number of Conductors	Weight	Nominal Outer Diameter	Min. Bend Radius Installation	Min. Bend Radius Operation
900 µm tight-buffered fiber with 16AWG					
1	2	45.80 kg/km (30.78 lb/1000 ft)	6.60 mm (0.26 in)	99.06 mm (3.90 in)	66.04 mm (2.60 in)
2	2	62.10 kg/km (41.73 lb/1000 ft)	6.90 mm (0.27 in)	102.87 mm (4.05 in)	68.58 mm (2.70 in)
900 µm tight-buffered fiber with 20AWG					
1	2	32.2 kg/km (21.64 lb/1000 ft)	4.80 mm (0.19 in)	72.39 mm (2.85 in)	48.26 mm (1.90 in)
2	2	34.9 kg/km (23.45 lb/1000 ft)	5.20 mm (0.20 in)	76.20 mm (3.00 in)	50.8 mm (2.00 in)
2	4	49 kg/km (32.93 lb/1000 ft)	5.60 mm (0.22 in)	83.82 mm (3.30 in)	55.88 mm (2.20 in)
4	2	37.6 kg/km (25.27 lb/1000 ft)	5.3 mm (0.21 in)	80.01 mm (3.15 in)	53 mm (2.10 in)
4	4	56.5 kg/km (37.97 lb/1000 ft)	6.40 mm (0.25 in)	95.25 mm (3.75 in)	63.50 mm (2.50 in)
6	2	44.2 kg/km (29.70 lb/1000 ft)	6.30 mm (0.25 in)	95.25 mm (3.75 in)	63.50 mm (2.50 in)
6	4	59.40 kg/km (39.91 lb/1000 ft)	7.0 mm (0.28 in)	106.68 mm (4.20 in)	71.12 mm (2.80 in)
900 µm tight-buffered fiber with 22AWG					
1	2	28.4 kg/km (19.08 lb/1000 ft)	4.70 mm (0.19 in)	72.39 mm (2.85 in)	48.26 mm (1.90 in)

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Fiber Count	Number of Conductors	Weight	Nominal Outer Diameter	Min. Bend Radius Installation	Min. Bend Radius Operation
2	2	30.6 kg/km (20.56 lb/1000 ft)	5.0 mm (0.20 in)	50.8 mm (2.0 in)	76.2 mm (3.00 in)
2	4	41.3 kg/km (27.75 lb/1000 ft)	5.4 mm (0.21 in)	53.34 mm (2.10 in)	80.01 mm (3.15 in)
4	2	33.7 kg/km (22.65 lb/1000 ft)	5.2 mm (0.20 in)	50.8 mm (2.0 in)	76.2 mm (3.00 in)
4	4	46.3 kg/km (31.11 lb/1000 ft)	6.0 mm (0.24 in)	60.96 mm (2.40 in)	91.44 mm (3.60 in)
6	2	38.7 kg/km (26.01 lb/1000 ft)	5.8 mm (0.23 in)	58.42 mm (2.30 in)	87.63 mm (3.45 in)
6	4	51.7 kg/km (34.74 lb/1000 ft)	6.8 mm (0.27 in)	68.58 mm (2.70 in)	102.87 mm (4.05 in)
900 µm tight-buffered fiber with 24AWG					
1	2	25.5 kg/km (17.14 lb/1000 ft)	4.7 mm (0.19 in)	72.39 mm (2.85 in)	48 mm (1.9 in)
2	2	27.4 kg/km (18.41 lb/1000 ft)	4.9 mm (0.19 in)	72.39 mm (2.85 in)	48.56 mm (1.90 in)
2	4	35.6 kg/km (23.92 lb/1000 ft)	5.4 mm (0.21 in)	53.34 mm (2.10 in)	80.01 mm (3.15 in)
4	2	30.7 kg/km (20.63 lb/1000 ft)	5.2 mm (0.20 in)	50.8 mm (2.0 in)	76.2 mm (3.0 in)
4	4	42.2 kg/km (28.36 lb/1000 ft)	6.0 mm (0.24 in)	60.96 mm (2.40 in)	91.44 mm (3.60 in)
6	2	37.3 kg/km (25.06 lb/1000 ft)	5.80 mm (0.23 in)	87.63 mm (3.45 in)	58.42 mm (2.30 in)
6	4	46.7 kg/km (31.38 lb/1000 ft)	6.6 mm (0.26 in)	66.04 mm (2.60 in)	99.06 mm (3.90 in)

## Chemical Characteristics

RoHS

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

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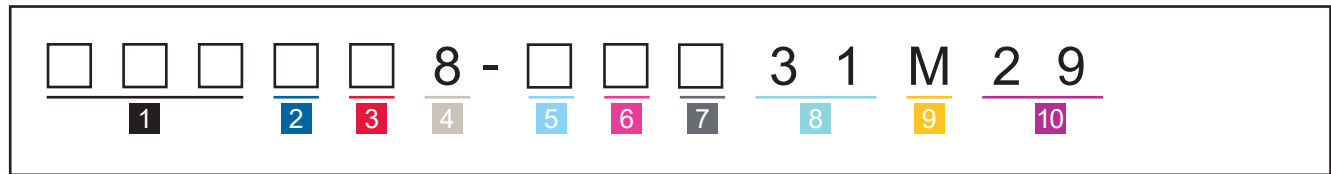
## Transmission Performance

Single-mode		
Fiber Name	ClearCurve® ZBL	SMF-28® Ultra fiber
Fiber Category	G.657.B3/G.652.D	G.652.D/G.657.A1
Fiber Code	U	Z
Performance Option Code	31	31
Wavelengths (nm)	1310/1383/1550	1310/1383/1550
Maximum Attenuation (dB/km)	0.4/0.4/0.3	0.65/0.65/0.5

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

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



**1** Select fiber count.

001 = 1 fiber    004 = 4 fiber  
002 = 2 fiber    006 = 6 fiber

**2** Select fiber type.

U = ClearCurve® ZBL (OS2)  
Z = SMF28® Ultra fiber (OS2)

**3** Select cable construction.

4 = 900 µm tight-buffered fiber  
6 = 2.0 mm single fiber cable

**4** Defines outer jacket.

8 = Plenum indoor

**5** Select number of copper conductors.

2 = 2 conductors  
4 = 4 conductors

**6** Defines unit of measure.

1 = Feet  
2 = Meter

**7** Select cable construction.

R = 24 AWG (900 µm)  
Q = 22 AWG (900 µm)  
Z = 20 AWG (900 µm)  
Y = 16 AWG (2.0 mm)

**8** Defines performance option code.

31 = Single-mode, OS2  
(Max. attenuation 0.4/0.4/0.3 dB/km)

**9** Defines cable construction.

M = Hybrid (composite) cable

**10** Defines print code.

29 = Non-armored

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## Notes



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