

# UltraRibbon™ Indoor, Gel-Free Cables, 288-432 Fibers, Riser

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## Features and Benefits

**Each 12-fiber ribbon individually numbered**  
Easy identification

**Precise fiber and ribbon geometries in a gel-free design**  
Excellent mass splicing yields

**Flame-retardant jacket**  
Rugged and durable

**Up to 432 fibers in a compact design**  
Easily fits in 1.25-in diameter inner duct

**Common installations**  
Indoor vertical riser and general purpose horizontal according to National Electrical Code® (NEC®) Article 770

Corning UltraRibbon™ Riser Gel-Free Cables continue the innovative breakthrough in indoor cable technology with a new generation of high-fiber-count single tube cables. Providing up to 432 fibers in a rugged, compact design, the cable maximizes the use of critical duct space and can easily fit in 1.25-in inner duct. A specially formulated flame-retardant jacket allows this cable to be used in indoor general purpose horizontal and riser applications.

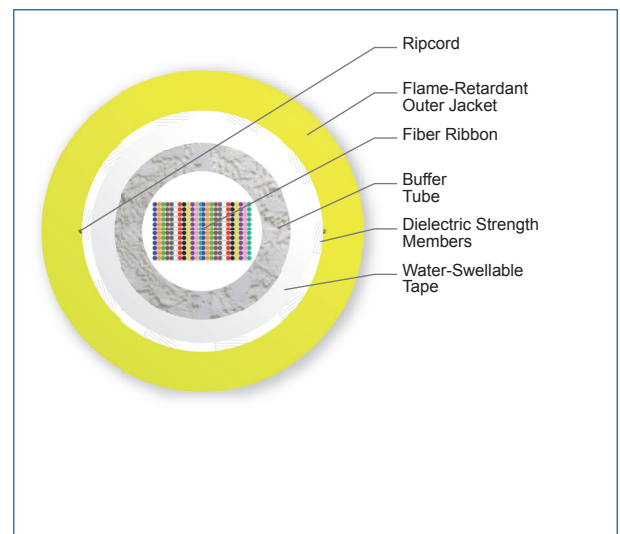
The cable consists of a single buffer tube containing a stack of up to eighteen 24-fiber ribbons. The 24-fiber ribbons can be easily separated by hand into two 12-fiber ribbons. The 12-fiber ribbons have readily identifiable ribbon IDs, fiber colors, and precise geometries that result in excellent mass-splicing yields.

## Standards

|                          |                                             |
|--------------------------|---------------------------------------------|
| Listings                 | National Electrical Code® (NEC®) OFNR, FT-4 |
| Design and Test Criteria | ANSI/ICEA S-83-596; CSA FT-4                |



UltraRibbon Riser Gel-Free Cables, 288 Fibers  
| Photo PIM2570



UltraRibbon Riser Gel-Free Cables, 288 Fibers  
| Photo PIM2349

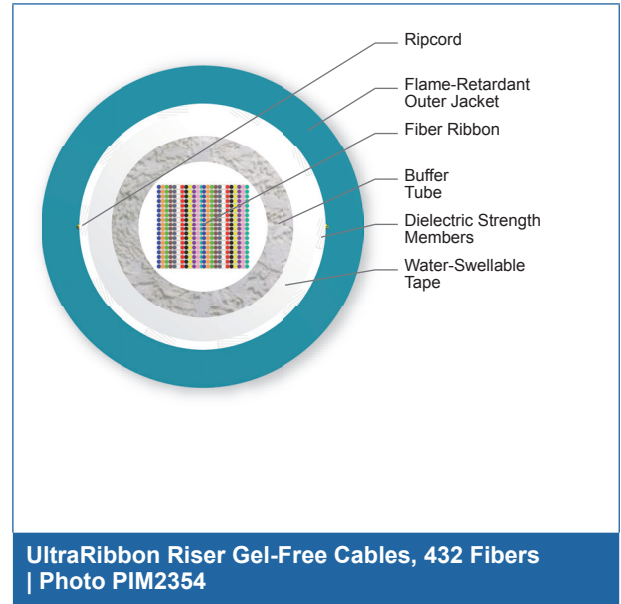
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UltraRibbon Riser Gel-Free Cables, 432 Fibers  
| Photo PIM2574



UltraRibbon Riser Gel-Free Cables, 432 Fibers  
| Photo PIM2354

## Specifications

| Temperature Range |                                    |
|-------------------|------------------------------------|
| Storage           | -40 °C to 70 °C (-40 °F to 158 °F) |
| Installation      | -10 °C to 60 °C (14 °F to 140 °F)  |
| Operation         | -20 °C to 70 °C (-4 °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, Short-Term | 1320 N (300 lbf) |
| Max. Tensile Strength, Long-Term  | 400 N (90 lbf)   |

| Fiber Count | Buffer Tube Diameter | Nominal Outer Diameter | Min. Bend Radius Installation | Max. Tensile Strength, Short-Term | Max. Tensile Strength, Long-Term | Weight                     | Min. Bend Radius Operation |
|-------------|----------------------|------------------------|-------------------------------|-----------------------------------|----------------------------------|----------------------------|----------------------------|
| 288         | 14 mm (0.55 in)      | 20.1 mm (0.79 in)      | 302 mm (11.9 in)              | 1320 N (300 lbf)                  | 400 N (90 lbf)                   | 309 kg/km (207 lb/1000 ft) | 201 mm (7.9 in)            |
| 360         | 14.6 mm (0.57 in)    | 20.7 mm (0.81 in)      | 311 mm (12.2 in)              | 1320 N (300 lbf)                  | 400 N (90 lbf)                   | 327 kg/km (219 lb/1000 ft) | 207 mm (8.1 in)            |
| 432         | 15.4 mm (0.60 in)    | 21.5 mm (0.85 in)      | 323 mm (12.7 in)              | 1320 N (300 lbf)                  | 400 N (90 lbf)                   | 351 kg/km (235 lb/1000 ft) | 215 mm (8.5 in)            |

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## Chemical Characteristics

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

## Transmission Performance

| Multimode                                        |          |          |                       |
|--------------------------------------------------|----------|----------|-----------------------|
| Fiber Core Diameter (μm)                         | 50       | 50       | 50                    |
| Fiber Category                                   | OM3      | OM4      | OM4 Extended Distance |
| Fiber Code                                       | T        | T        | T                     |
| Performance Option Code                          | 80       | 90       | 91                    |
| Wavelengths (nm)                                 | 850/1300 | 850/1300 | 850/1300              |
| Maximum Attenuation (dB/km)                      | 3.0/1.0  | 3.0/1.0  | 3.0/1.0               |
| Serial 1 Gigabit Ethernet (m)                    | 1000/600 | 1100/600 | 1100/600              |
| Serial 10 Gigabit Ethernet (m)                   | 300/-    | 550/-    | 600/-                 |
| Min. Overfilled Launch (OFL) Bandwidth (MHz*km)  | 1500/500 | 3500/500 | 3500/500              |
| Minimum Effective Modal Bandwidth (EMB) (MHz*km) | 2000/-   | 4700/-   | 5350/-                |

\* 50 μm multimode fiber (OM4) T91 10 Gigabit Ethernet Distance assumes 0.7 dB maximum total connector/splice loss.

\* 50 μm multimode fiber (OM4) T90 10 Gigabit Ethernet distance assumes 1.0 dB maximum total connector/splice loss.

\* 50 μm multimode fiber (OM3/OM4) meets 0.75 ns optical skew when used in all Corning Plug & Play™/EDGE™ systems solutions.

| Single-mode                 |                   |                     |
|-----------------------------|-------------------|---------------------|
| Fiber Name                  | Single-mode (OS2) | SMF-28® Ultra fiber |
| Fiber Category              | G.652.D           | ITU-T G.657.A1      |
| Fiber Code                  | E                 | Z                   |
| Performance Option Code     | 01                | 01                  |
| Wavelengths (nm)            | 1310/1383/1550    | 1310/1383/1550      |
| Maximum Attenuation (dB/km) | 0.4/0.4/0.3       | 0.4/0.4/0.3         |

\* Improved attenuation and bandwidth options available.

\* Bend-insensitive single-mode fibers available on request.

\* 50 μm multimode fiber macrobend loss ≤ 0.2 dB at 850 nm for two turns around 7.5 mm radius mandrel.

\* 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)

\* Contact a Corning Customer Care Representative for additional information.

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

|                      |                      |                      |                      |   |   |   |   |   |    |                      |                      |   |   |   |
|----------------------|----------------------|----------------------|----------------------|---|---|---|---|---|----|----------------------|----------------------|---|---|---|
| <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | V | 7 | - | 1 | 4 | 1  | <input type="text"/> | <input type="text"/> | D | 2 | 0 |
| 1                    | 2                    | 3                    | 4                    | 5 | 6 | 7 | 8 | 9 | 10 |                      |                      |   |   |   |

**1** Select fiber count.  
Standard offerings:  
288 360 432

**2** Select fiber code.  
T = 50 µm multimode,  
(OM3/OM4/OM4+)  
E = Single-mode (OS2)  
SMF-28e+®  
Z = Single-mode (OS2)  
SMF-28® ULTRA

**3** Defines cable type.  
V = Gel-free cable

**4** Defines outer jacket.  
7 = Riser

**5** Defines fiber placement.  
1 = Standard for ribbon cables

**6** Defines length markings.  
4 = Markings in ft (standard)

**7** Defines tensile strength.  
1 = 2700 N/600 lb (standard)

**8** Select performance option code.  
80 = 50 µm multimode (OM3)  
90 = 50 µm multimode (OM4)  
91 = 50 µm multimode (OM4)  
01 = Single-mode (OS2)  
(Max. attenuation 0.4/0.4/0.3 dB/km)

**9** Defines cable type.  
D = Gel-free cable

**10** Defines special requirements.  
20 = Standard



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