

# Ribbon Indoor, Gel-Free, Interlocking Armored Cables, Riser



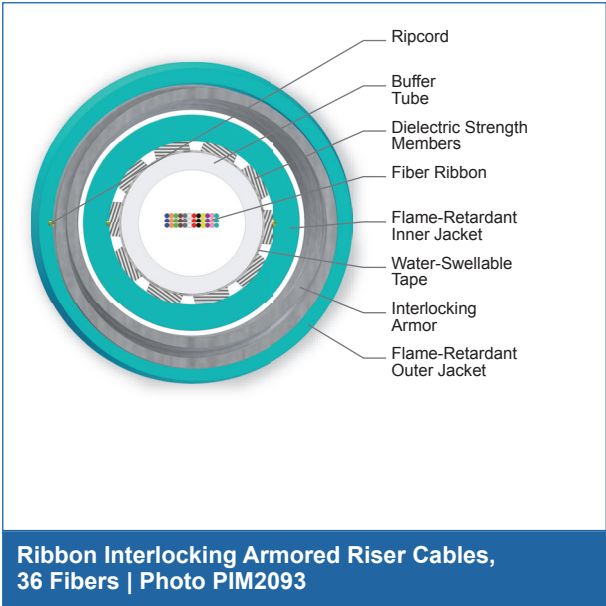
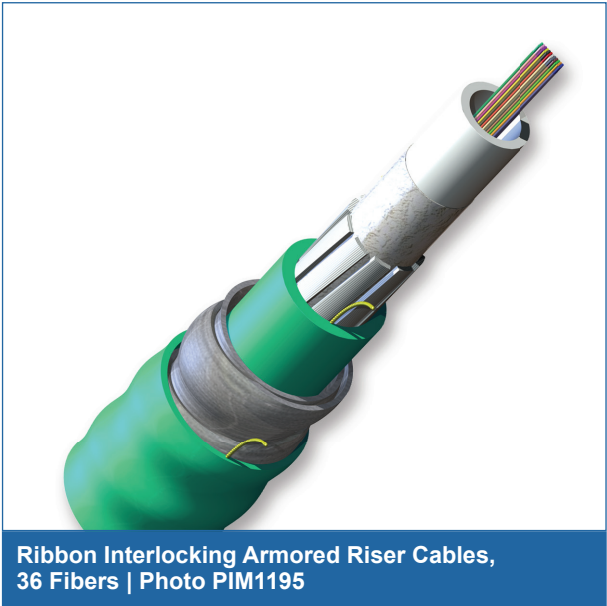
## Features and Benefits

|                                                                                                                |
|----------------------------------------------------------------------------------------------------------------|
| <b>Ribbon ID numbers and fiber colors</b>                                                                      |
| Easily identifiable                                                                                            |
| <b>Precise fiber and ribbon geometries</b>                                                                     |
| Excellent mass splicing yields                                                                                 |
| <b>Flame-retardant jacket</b>                                                                                  |
| Rugged and durable                                                                                             |
| <b>Flexible interlocking armor</b>                                                                             |
| Up to seven times the crush protection compared to non-armored cables                                          |
| <b>Common installations</b>                                                                                    |
| Indoor vertical riser and general purpose horizontal according to National Electrical Code® (NEC®) Article 770 |

Corning ribbon interlocking armored riser cables are designed for use in riser and general-purpose environments in intrabuilding backbone and horizontal installations. These cables are standard ribbon riser cables placed inside spirally wrapped aluminum interlocking armor for ruggedness and superior crush resistance. This special construction facilitates routing inside buildings, through riser shafts, to telecommunication rooms and to work-stations. Ideal for heavy traffic or more challenging mechanical exposure conditions, this cable design consists of fibers organized into 12-fiber ribbons inside a central tube surrounded by dielectric strength members to provide tensile strength. The flexible interlocking armor up to seven times the crush protection of nonarmored cables, while a specially formulated flame-retardant outer jacket allows the design to meet the requirements of the NFPA 262 flame test. The 12-fiber ribbons have readily identifiable ribbon ID numbers and fiber colors with easy access to individual fibers.

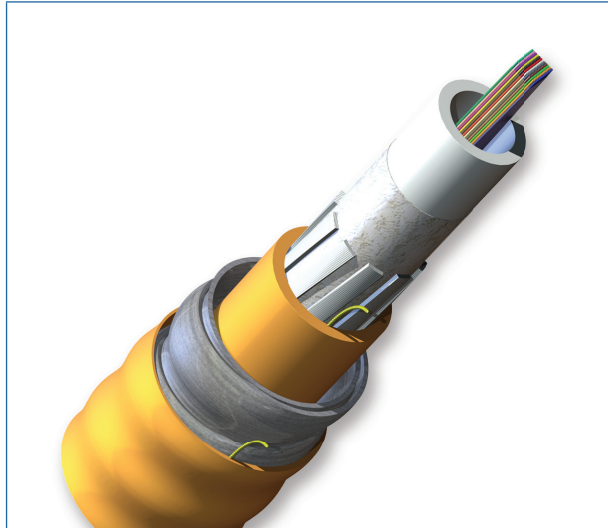
## Standards

|                          |                                       |
|--------------------------|---------------------------------------|
| Listings                 | National Electrical Code® (NEC®) OFNR |
| Design and Test Criteria | ANSI/ICEA S-83-596; CSA FT-6          |

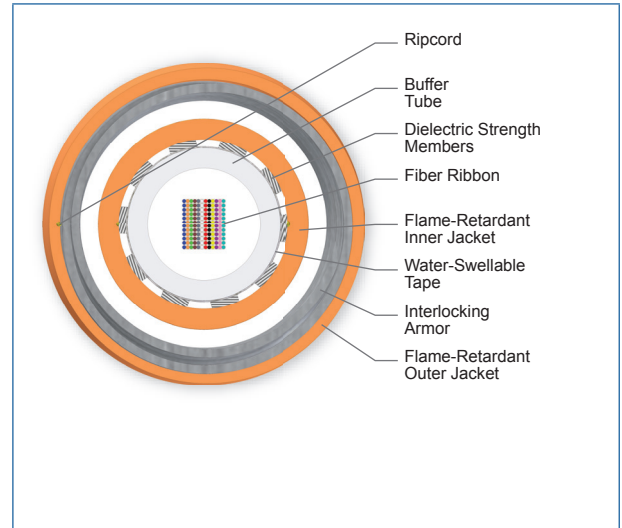


# Ribbon Indoor, Gel-Free, Interlocking Armored Cables, Riser

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Ribbon Interlocking Armored Riser Cables,  
144 Fibers | Photo PIM1206



Ribbon Interlocking Armored Riser Cables,  
144 Fibers | Photo PIM2104

## 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 | Min. Bend Radius Operation | Weight                     |
|-------------|----------------------|------------------------|-------------------------------|-----------------------------------|----------------------------------|----------------------------|----------------------------|
| 12 - 48     | 8.1 mm (0.32 in)     | 15.7 mm (0.62 in)      | 236 mm (9.29 in)              | 1320 N (300 lbf)                  | 400 N (90 lbf)                   | 157 mm (6.18 in)           | 212 kg/km (142 lb/1000 ft) |
| 72 - 96     | 8.1 mm (0.32 in)     | 18.8 mm (0.74 in)      | 282 mm (11.1 in)              | 1320 N (300 lbf)                  | 400 N (90 lbf)                   | 188 mm (7.4 in)            | 295 kg/km (198 lb/1000 ft) |

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| Fiber Count | Buffer Tube Diameter | Nominal Outer Diameter | Min. Bend Radius Installation | Max. Tensile Strength, Short-Term | Max. Tensile Strength, Long-Term | Min. Bend Radius Operation | Weight                     |
|-------------|----------------------|------------------------|-------------------------------|-----------------------------------|----------------------------------|----------------------------|----------------------------|
| 144         | 11 mm (0.43 in)      | 22.5 mm (0.89 in)      | 338 mm (13.31 in)             | 1320 N (300 lbf)                  | 400 N (90 lbf)                   | 225 mm (8.86 in)           | 396 kg/km (266 lb/1000 ft) |
| 216         | 11 mm (0.43 in)      | 22.5 mm (0.89 in)      | 338 mm (13.31 in)             | 1320 N (300 lbf)                  | 400 N (90 lbf)                   | 225 mm (8.86 in)           | 404 kg/km (271 lb/1000 ft) |

## 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       | 50                    |
| Fiber Category                                   | OM1      | OM2      | OM3      | OM4      | OM4 Extended Distance |
| Fiber Code                                       | K        | T        | T        | T        | T                     |
| Performance Option Code                          | 30       | 31       | 80       | 90       | 91                    |
| Wavelengths (nm)                                 | 850/1300 | 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  | 3.0/1.0               |
| Serial 1 Gigabit Ethernet (m)                    | 300/550  | 750/500  | 1000/600 | 1100/600 | 1100/600              |
| Serial 10 Gigabit Ethernet (m)                   | 33/-     | 150/-    | 300/-    | 550/-    | 600/-                 |
| Min. Overfilled Launch (OFL) Bandwidth (MHz*km)  | 200/500  | 700/500  | 1500/500 | 3500/500 | 3500/500              |
| Minimum Effective Modal Bandwidth (EMB) (MHz*km) | 220/-    | 950/-    | 2000/-   | 4700/-   | 5350/-                |

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

\* 50 μm multimode fiber (OM4) T91 10 Gigabit Ethernet Distance assumes 0.7 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.

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| Single-mode                  |                   |                     |
|------------------------------|-------------------|---------------------|
| Typical Attenuation* (dB/km) | -                 | 0.33/0.33/0.19      |
| Fiber Name                   | Single-mode (OS2) | SMF-28® Ultra fiber |
| Fiber Category               | G.652.D           | 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  $\mu$ m multimode fiber macrobend loss  $\leq$  0.2 dB at 850 nm for two turns around 7.5 mm radius mandrel.

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

## 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"/> | C | 7 | - | 1 | 4 | 1  | <input type="text"/> | <input type="text"/> | - | A1 |
| 1                    | 2                    | 3                    | 4                    | 5 | 6 | 7 | 8 | 9 | 10 |                      |                      |   |    |

### 1 Select fiber count.

Standard offerings:  
012 - 216  
Increments of 12

### 2 Select fiber code.

K = 62.5  $\mu$ m multimode (OM1)  
T = 50  $\mu$ m multimode,  
(OM2/OM3/OM4/OM4+)  
E = Single-mode (OS2)  
SMF-28e+®  
Z = Single-mode (OS2)  
SMF-28® Ultra fiber

### 3 Defines cable type.

C = Ribbon cable

### 4 Defines outer jacket.

7 = Riser

### 5 Defines fiber placement.

1 = 12 fibers/buffer tube  
(standard)

### 6 Defines length markings.

4 = Markings in feet (standard)

### 7 Defines tensile strength.

1 = Standard

### 8 Select performance option code.

30 = 62.5  $\mu$ m multimode (OM1)  
31 = 50  $\mu$ m multimode (OM2)  
80 = 50  $\mu$ m multimode (OM3)  
90 = 50  $\mu$ m multimode (OM4)  
91 = 50  $\mu$ m multimode (OM4+)  
01 = Single-mode (OS2)  
(Max. attenuation 0.4/0.4/0.3 dB/km)

### 9 Defines cable type.

- = Gel-free cable

### 10 Defines special requirements.

A1 = Interlocking armor with  
riser-rated outer jacket

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## Notes



**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)**

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