24 F, 50 µm multimode, extended 10G distance (OM4)



Corning ribbon interlocking armored plenum cables are designed for use in plenum, riser and general-purpose environments for intrabuilding backbone and horizontal installations. These cables are standard ribbon plenum cables placed inside spirally wrapped aluminum interlocking armor for ruggedness and superior crush resistance. This special construction facilitates routing inside buildings, through riser shafts and air-handling spaces, to telecommunication rooms and to workstations. 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 offers 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.



#### Features and Benefits

Ribbon ID numbers and fiber colors Easily identifiable

Precise fiber and ribbon geometries
Excellent mass splicing yields

Flame-retardant jacket
Rugged and durable

Flexible interlocking armor

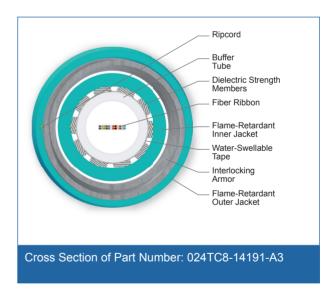
Up to seven times the crush protection compared to non-armored cables

**Common installations** 

Indoor plenum, riser and general building applications

#### **Standards**

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



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## **Specifications**

| General Specifications |  |
|------------------------|--|
| Environment            | Indoor   |
| Application            | General Purpose Horizontal, Vertical Riser, Plenum |
| Cable Type             | Ribbon   |
| Product Type           | Interlocking armor                                 |
| Flame Rating           | Plenum (OFCP)                                      |
| Fiber Category         | 50 μm MM (OM4+)                                    |

| 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)    |

| Cable Design  |  |
|---|--|
| Fiber Count   | 24   |
| Ribbons per Tube                                    | 2  |
| Fibers per Ribbon                                   | 12   |
| Fiber Coloring                                      | Blue, Orange, Green, Brown, Slate, White, Red, Black, Yellow, Violet, Rose, Aqua |
| Buffer Tube Color                                   | Natural  |
| Buffer Tube Diameter                                | 8.1 mm (0.32 in)   |
| Tape  | Water-swellable  |
| Tensile Strength Elements and/or Armoring - Layer 1 | Dielectric strength members  |
| Number of Ripcords                                  | 2  |
| Inner Jacket Material                               | Flame-retardant  |
| Tensile Strength Elements and/or Armoring - Layer 3 | Interlocking armor   |
| Outer Jacket Material                               | Flame-retardant  |
| Outer Jacket Color                                  | Aqua   |

| Mechanical Characteristics Cable  |                   |
|-----------------------------------|-------------------|
| Max. Tensile Strength, Short-Term | 1320 N (300 lbf)  |
| Max. Tensile Strength, Long-Term  | 400 N (90 lbf)    |
| Nominal Inner Cable Diameter      | 9.7 mm (0.38 in)  |
| Nominal Outer Diameter            | 15.7 mm (0.62 in) |



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| Mechanical Characteristics Cable |                                  |
|----------------------------------|----------------------------------|
| Min. Bend Radius Installation    | 235.5 mm (9.3 in)                |
| Min. Bend Radius Operation       | 157 mm (6.2 in)                  |
| Weight                           | 215.15 kg/km (144.57 lb/1000 ft) |

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

#### **Fiber Specifications**

| Optical Characteristics (cabled)        |                          |
|---|--------------------------|
| Fiber Core Diameter                     | 50 μm                    |
| Fiber Category                          | OM4 Extended Distance    |
| Fiber Code                              | Т                        |
| Performance Option Code                 | 91                       |
| Wavelengths                             | 850 nm / 1300 nm         |
| Maximum Attenuation                     | 3.0 dB/km / 1.0 dB/km    |
| Serial 1 Gigabit Ethernet               | 1100 m / 600 m           |
| Serial 10 Gigabit Ethernet              | 600 m / -                |
| Min. Overfilled Launch (OFL) Bandwidth  | 3500 MHz*km / 500 MHz*km |
| Minimum Effective Modal Bandwidth (EMB) | 5350 MHz*km / -          |

<sup>\*</sup> Assumes 0.7 dB maximum total connector/splice loss.

Notes: 1) 50 µm multimode fiber macrobend loss ≤ 0.2 dB at 850 nm for two turns around 7.5 mm radius mandrel.
2) Improved attenuation and bandwidth options available.

- 3) Bend-insensitive single-mode fibers available on request.
- 4) Contact a Corning Customer Care Representative for additional information.

#### **Ordering Information**

| Part Number         | 024TC8-14191-A3  |
|---------------------|--|
| Product Description | Ribbon Interlocking Armored Cable, Plenum, 24 F, 50 $\mu m$ multimode, extended 10G distance (OM4) |
| EAN Code            | 4056418141510  |



<sup>\*</sup> Meets 0.75 ns optical skew when used in all Corning Plug and Play™/EDGE™ systems solutions.

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Notes



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