

FREEDM® One Tight-Buffered, Interlocking Armored Cable, Plenum

24 F, 50 µm multimode (OM3)

CORNING

Corning FREEDM® One interlocking armored cables are flame-retardant, indoor/outdoor cables designed for interbuilding and intrabuilding backbone installations that eliminate the need for a transition splice when entering the building. Encased in a spirally wrapped, aluminum interlocking armor for ruggedness and superior crush resistance, these cables are ideal for industrial and heavy traffic areas and installations requiring extra protection for optical cables. These cables are protected against water penetration by innovative waterblocking technology, making them ideal for OSP applications. The flexible, interlocking armored design offers up to seven times the crush protection compared to unarmored cables (as characterized to ICEA-696) and allows easy one-step installation, thereby reducing overall installation costs. The UV-resistant, flame-retardant jacket is rugged, durable and easy to strip.

Note: This cable is available in 12 different jacket colors – blue, orange, green, brown, slate, white, red, black, yellow, violet, rose and aqua. The colored jacket allows for easy visual identification of the cables while still providing all of the required environmental protection of an indoor/outdoor cable jacket. Black is the standard jacket color using the part numbers shown here. Contact Customer Care at 1-800-743-2675 to order other color options.

Features and Benefits

Waterblocking technology

OSP (outdoor) applications

Flexible, interlocking armor design

Seven times crush protection compared to unarmored cables

UV-resistant, flame-retardant jacket

Rugged, durable and easy to strip

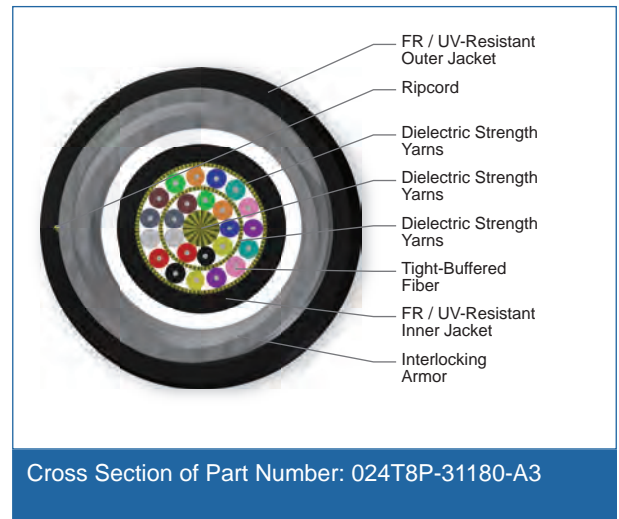
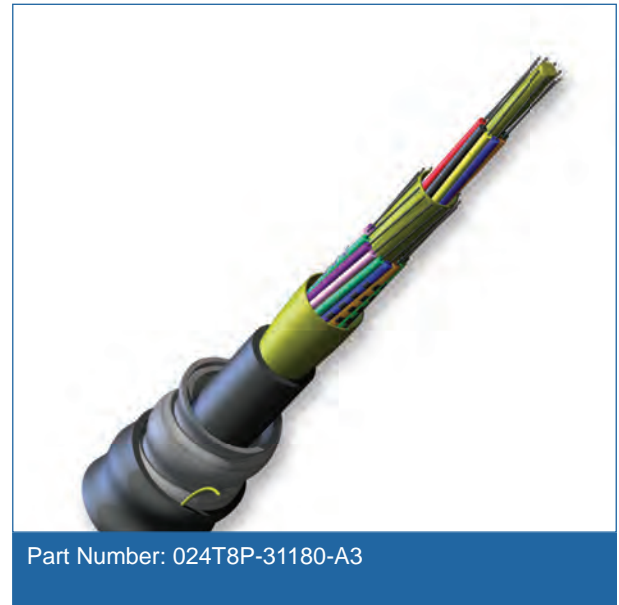
Standards

Approvals and Listings

National Electrical Code® (NEC®) OFCP, CSA FT-4, ICEA S-104-696

Flame Resistance

NFPA 262 (for plenum, riser and general building applications)



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Specifications

General Specifications

| | |
|----------------|---|
| Environment | Indoor/Outdoor Cables |
| Application | Aerial, Direct Buried, Duct, General Purpose Horizontal, (Vertical Riser, Plenum) |
| Cable Type | Tight-Buffered |
| Product Type | Interlocking armor |
| Flame Rating | Plenum (OFCP) |
| Fiber Category | 50 μ m MM (OM3) |

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 | -40 °C to 70 °C (-40 °F to 158 °F) |

Cable Design

| | |
|---|--|
| Central Element | Dielectric |
| Fiber Count | 24 |
| Tight Buffer Color | Blue, Orange, Green, Brown, Slate, White, Red, Black, Yellow, Violet, Rose, Aqua, Blue*, Orange*, Green*, Brown*, Slate*, White*, Red*, Black*, Yellow*, Violet*, Rose*, Aqua* |
| Tensile Strength Elements and/or Armoring - Layer 1 | Water-swellable strength members |
| Inner Jacket Material | Flame-Retardant, UV-Resistant |
| Tensile Strength Elements and/or Armoring - Layer 2 | Interlocking armor |
| Number of Ripcords | 2 |
| Outer Jacket Material | Flame-Retardant, UV-Resistant |
| Outer Jacket Color | Black |

Mechanical Characteristics Cable

| | |
|-------------------------------|--------------------------------|
| Nominal Inner Cable Diameter | 8.0 mm (0.31 in) |
| Nominal Outer Diameter | 13.7 mm (0.54 in) |
| Weight | 161.4 kg/km (108.5 lb/1000 ft) |
| Min. Bend Radius Installation | 205.5 mm (8.1 in) |
| Min. Bend Radius Operation | 137 mm (5.4 in) |

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Mechanical Characteristics Cable

| | |
|-----------------------------------|------------------|
| Max. Tensile Strength, Short-Term | 1350 N (300 lbf) |
| Max. Tensile Strength, Long-Term | 400 N (90 lbf) |

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 | OM3 |
| Fiber Code | T |
| Performance Option Code | 80 |
| Wavelengths | 850 nm / 1300 nm |
| Maximum Attenuation | 2.8 dB/km / 1.0 dB/km |
| Serial 1 Gigabit Ethernet | 1000 m / 600 m |
| Serial 10 Gigabit Ethernet | 300 m / - |
| Min. Overfilled Launch (OFL) Bandwidth | 1500 MHz*km / 500 MHz*km |
| Minimum Effective Modal Bandwidth (EMB) | 2000 MHz*km / - |

Ordering Information

| | |
|---------------------|---|
| Part Number | 024T8P-31180-A3 |
| Product Description | FREEDM® One Tight-Buffered, Interlocking Armored Cable, Plenum, 24 F, 50 µm multimode (OM3) |
| EAN Code | 4056418177489 |



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

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