

FREEDM® Ribbon, Gel-Free Cable, Riser

CORNING

Corning FREEDM® ribbon riser cables are lightweight cables designed for indoor/outdoor installations such as campus backbones in aerial, duct and riser applications. A UV-resistant, flame-retardant jacket allows added flexibility in placing this cable outdoors, whether it is an aerial, duct or direct-buried application, or indoor general horizontal or riser applications.

The cable consists of a ribbon stack of 12-fiber ribbons within a gel-free central buffer tube. With easily accessible individual 250 µm colored fibers, the ribbons have readily identifiable ribbon ID numbers and fiber colors. The precise fiber and ribbon geometries result in excellent mass splicing yields. Surrounding the tube are dielectric strength members that provide tensile strength and innovative waterblocking tapes that reduce cable weight and preparation time. This design is also compatible with standard ribbon cable procedures and hardware for easy field installation and reduced labor costs.

Features and Benefits

Fiber and ribbon geometries

Provide excellent mass fusion splicing results

Waterblocked cable

Enables use of cables for outdoor applications

12-fiber ribbons with ribbon IDs

Easy identification

UV-resistant, flame-retardant jacket

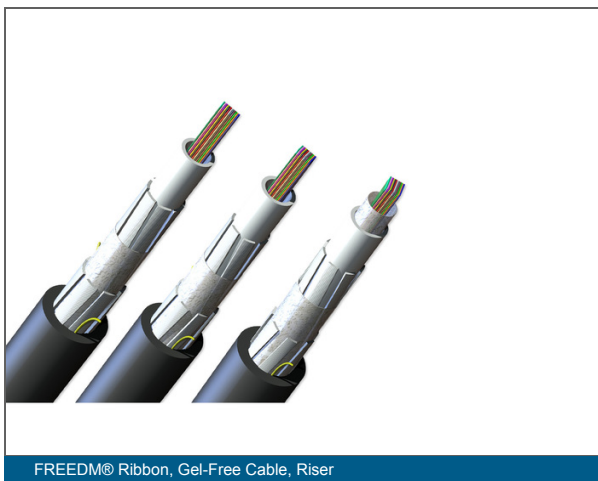
Rugged, durable and easy to strip

Available in preconnectorized assemblies

Easy field installation and reduced labor costs

Common installations

Outdoor aerial and duct



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Standards

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

Specifications

General Specifications

| | |
|--------------|----------------|
| Environment | Indoor/Outdoor |
| Cable Type | Ribbon |
| Flame Rating | Riser (OFNR) |

Temperature Range

| | |
|---------------------------------|----------------------------------|
| Temperature Range, Storage | -40 °C - 70 °C (-40 °F - 158 °F) |
| Temperature Range, Installation | -10 °C - 60 °C (14 °F - 140 °F) |
| Temperature Range, Operation | -40 °C - 70 °C (-40 °F - 158 °F) |

Design Characteristics Cable

| Fiber Count | Buffer Tube Diameter | Ribbons per Tube | Fibers per Ribbon |
|-------------|----------------------|------------------|-------------------|
| 12 | 5.6 mm (0.22 in) | 1 | 12 |
| 24 | 5.6 mm (0.22 in) | 2 | 12 |
| 36 | 5.6 mm (0.22 in) | 3 | 12 |
| 48 | 5.6 mm (0.22 in) | 4 | 12 |
| 72 | 6.1 mm (0.24 in) | 6 | 12 |
| 96 | 7 mm (0.28 in) | 8 | 12 |
| 144 | 7.8 mm (0.31 in) | 12 | 12 |
| 216 | 12.3 mm (0.48 in) | 18 | 12 |

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Mechanical Characteristics Cable

| Fiber Count | Product Type | Nominal Outer Diameter | Max. Tensile Strength, Short-Term | Max. Tensile Strength, Long-Term | Min. Bend Diameter Operation | Min. Bend Diameter Installation | Cable Weight |
|-------------|--------------------|------------------------|-----------------------------------|----------------------------------|------------------------------|---------------------------------|--------------------------------------|
| 12 | Dielectric | 12 mm (0.47 in) | 2700 N (606.98 lbf) | 890 N (200.08 lbf) | 240 mm (9.45 in) | 480 mm (18.9 in) | 131 kg/km (88.03 lb/ 1000 ft) |
| 24 - 36 | Dielectric | 12 mm (0.47 in) | 2700 N (606.98 lbf) | 890 N (200.08 lbf) | 240 mm (9.45 in) | 480 mm (18.9 in) | 132 kg/km (88.7 lb/ 1000 ft) |
| 48 | Dielectric | 12 mm (0.47 in) | 2700 N (606.98 lbf) | 890 N (200.08 lbf) | 240 mm (9.45 in) | 480 mm (18.9 in) | 133 kg/km (89.37 lb/ 1000 ft) |
| 72 - 96 | Dielectric | 12.7 mm (0.5 in) | 2700 N (606.98 lbf) | 890 N (200.08 lbf) | 254 mm (10 in) | 508 mm (20 in) | 157 kg/km (105.5 lb/ 1000 ft) |
| 144 | Dielectric | 13.6 mm (0.54 in) | 2700 N (606.98 lbf) | 890 N (200.08 lbf) | 272 mm (10.71 in) | 544 mm (21.42 in) | 175 kg/km (117.59 lb/ 1000 ft) |
| 216 | Dielectric | 17.6 mm (0.69 in) | 2700 N (606.98 lbf) | 890 N (200.08 lbf) | 528 mm (20.79 in) | 704 mm (27.72 in) | 286 kg/km (192.18 lb/ 1000 ft) |
| 12 - 48 | Interlocking Armor | 17.3 mm (0.68 in) | 2700 N (606.98 lbf) | 890 N (200.08 lbf) | 346 mm (13.62 in) | 692 mm (27.24 in) | 125 kg/km (84 lb/ 1000 ft) |
| 72 | Interlocking Armor | 18.8 mm (0.74 in) | 2700 N (606.98 lbf) | 890 N (200.08 lbf) | 376 mm (14.8 in) | 752 mm (29.61 in) | 135 kg/km (90.72 lb/ 1000 ft) |
| 96 | Interlocking Armor | 19 mm (0.75 in) | 2700 N (606.98 lbf) | 890 N (200.08 lbf) | 380 mm (14.96 in) | 760 mm (29.92 in) | 143 kg/km (96.09 lb/ 1000 ft) |
| 144 | Interlocking Armor | 20.9 mm (0.82 in) | 2700 N (606.98 lbf) | 890 N (200.08 lbf) | 418 mm (16.46 in) | 836 mm (32.91 in) | 191 kg/km (128.35 lb/ 1000 ft) |
| 216 | Interlocking Armor | 27.4 mm (1.08 in) | 2700 N (606.98 lbf) | 890 N (200.08 lbf) | 822 mm (32.36 in) | 1096 mm (43.15 in) | 254 kg/km (170.68 lb/ 1000 ft) |

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Transmission Performance

| Single-mode | |
|-------------------------|---|
| Fiber Name | Single-mode (OS2) - Bend-Improved Single-mode (OS2) |
| Performance Option Code | 01 |
| Fiber Category | OS2 |
| Wavelengths | 1310 nm / 1383 nm / 1550 nm |
| Fiber Code | E - Z |
| Maximum Attenuation | 0.4 dB/km / 0.4 dB/km / 0.3 dB/km |



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