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



Corning ruggedized ribbon plenum cables are designed for intrabuilding backbones in plenum, riser and general-purpose installation. With a flame-retardant outer jacket that meets the requirements of the National Electrical Code® (NEC®), Article 770-51(A) and NFPA 262 flame tests, the cables are also ideal for data centers and segregating secure traffic on protected distribution systems (PDS). The cables consist of fibers organized into easily identifiable 12-fiber ruggedized ribbons inside a central tube with readily identifiable ribbon ID numbers and fiber colors which allow easy access of individual fibers. Dielectric strength members provide tensile strength. These cables are compatible with standard ribbon cable procedures and hardware.

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. The standard jacket color will be determined by the dominant fiber type in the cable and will use the standard part numbers shown here. Contact Customer Care at 1-800-743-2675 to order other color options.



### **Features and Benefits**

Precise fiber and ribbon geometries

Excellent mass splicing yields

Ribbon ID numbers and fiber colors Easily identifiable

Dielectric strength members
Additional mechanical durability

Common installations

Indoor plenum, riser and general building applications

# Water-Swellable Tape Dielectric Strength Members Fiber Ribbon Ripcord Flame-Retardant Ribbon Jacket Buffer Tube Flame-Retardant Outer Jacket Cross Section of Part Number: 048TC8-94191-20

### **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	Distribution
Flame Rating	Plenum (OFNP)
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	48
Ribbons per Tube	4
Fibers per Ribbon	12
Fiber Coloring	Blue, Orange, Green, Brown, Slate, White, Red, Black, Yellow, Violet, Rose, Aqua
Ribbon jacket material	Flame-retardant
Ribbon jacket color	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
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)
Weight	195 kg/km (131 lb/1000 ft)
Nominal Outer Diameter	13.6 mm (0.5 in)



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Mechanical Characteristics Cable	
Min. Bend Radius Installation	204 mm (8 in)
Min. Bend Radius Operation	136 mm (5.4 in)

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 / -

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	048TC8-94191-20
Product Description	Ruggedized Ribbon Cable, Plenum, 48 F, 50 µm multimode, extended 10G distance (OM4)



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