

# FREEDM® Loose Tube, Gel-Free Cable, Riser

288 F, SMF-28® Ultra fiber, Single-mode (OS2)

CORNING

Corning FREEDM® loose tube gel-free riser cables are flame-retardant, indoor/outdoor, riser-rated cables designed for interbuilding and intrabuilding backbones in aerial, duct and riser applications. These cables are protected against water penetration by innovative waterblocking materials that swell to absorb water. Waterblocking without the use of messy gels provides more efficient and craft-friendly cable preparation. It also makes cable access easier and simplifies the use of buffer tube fan-out kits.

The buffer tubes and fibers in each tube are color coded for quick, easy identification. The SZ-stranded, loose tube design isolates fibers from installation and environmental rigors and allows for easy mid-span access. The cable design is also National Electrical Code® (NEC®) listed (OFNR and FT-4). The all-dielectric cable construction requires no grounding or bonding, and 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

### Gel-free waterblocking technology

Craft-friendly cable preparation

### Loose tube design

Mechanical ruggedness and environmental durability

### Color-coded tubes and fibers

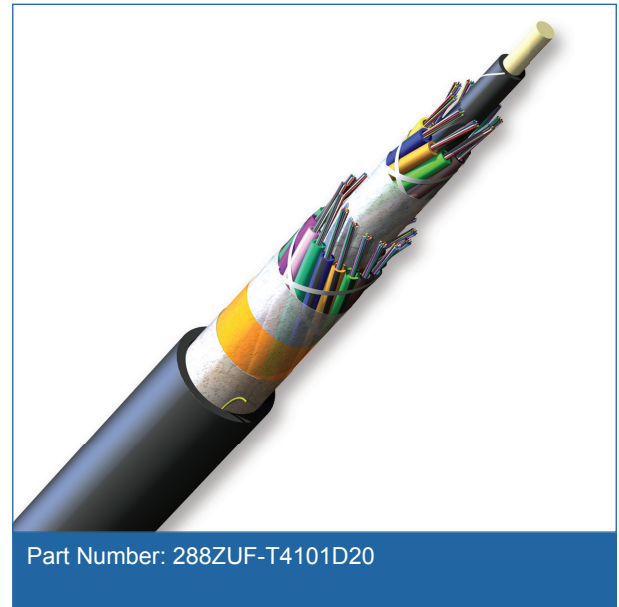
Quick and easy identification

### All-dielectric construction

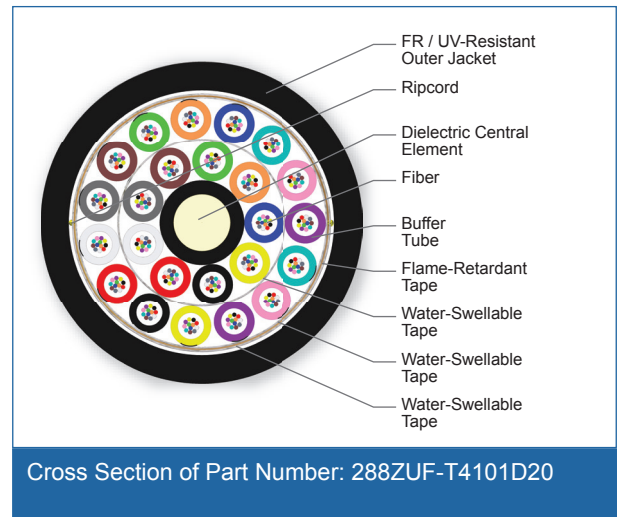
Requires no grounding or bonding

### Common installations

Outdoor lashed aerial and duct; indoor vertical riser and general purpose horizontal according to National Electrical Code (NEC) Article 770



Part Number: 288ZUF-T4101D20



Cross Section of Part Number: 288ZUF-T4101D20

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## Standards

**Listings** National Electrical Code®  
(NEC®) OFNR

**Design Criteria** CSA OFN FT-4

**Test Criteria** ANSI/ICEA S-104-696

## Specifications

### General Specifications

Environment	Indoor/Outdoor Cables
Application	Aerial, Direct Buried, Duct, General Purpose Horizontal, (Vertical Riser)
Cable Type	Loose Tube
Product Type	Dielectric
Flame Rating	Riser (OFNR)
Fiber Category	SMF-28® Ultra fiber

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

### Cable Design

Central Element	Dielectric
Fiber Count	288
Fiber Coloring	Blue, Orange, Green, Brown, Slate, White, Red, Black, Yellow, Violet, Rose, Aqua
Fibers per Tube	12
Number of Tube Positions	24
Number of Active Tubes	24
Buffer Tube Color Coding, Layer 1	Blue, Orange, Green, Brown, Slate, White, Red, Black, Yellow
Buffer Tube Diameter	2.5 mm (0.1 in)
Tape	Water-swellable
Buffer Tube Color Coding, Layer 2	Violet, Rose, Aqua, Blue*, Orange*, Green*, Brown*, Slate*, White*, Red*, Black*, Yellow*, Violet*, Rose*, Aqua*
Tape, Layer 2	Water-swellable

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## Cable Design

Tape, Layer 3	Flame-retardant tape
Tape, Layer 4	Water-swellable
Number of Ripcords	2
Outer Jacket Material	Flame-Retardant, UV-Resistant
Outer Jacket Color	Black

## Mechanical Characteristics Cable

Max. Tensile Strength, Short-Term	2700 N (600 lbf)
Max. Tensile Strength, Long-Term	810 N (180 lbf)
Weight	283 kg/km (190 lb/1000 ft)
Min. Bend Radius Installation	298.5 mm (11.7 in)
Min. Bend Radius Operation	199 mm (7.8 in)
Nominal Outer Diameter	19.9 mm (0.78 in)

## Chemical Characteristics

RoHS	Free of hazardous substances according to RoHS 2002/95/EG
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## Fiber Specifications

### Optical Characteristics (cabled)

Fiber Name	SMF-28 <sup>®</sup> Ultra fiber
Fiber Category	G.657.A1
Fiber Code	Z
Performance Option Code	01
Wavelengths	1310 nm / 1383 nm / 1550 nm
Maximum Attenuation	0.4 dB/km / 0.4 dB/km / 0.3 dB/km
Typical Attenuation	0.33 dB/km / 0.33 dB/km / 0.19 dB/km

\* For more information on typical attenuation please see the Corning whitepaper at [http://csmedia.corning.com/opcomm//Resource\\_Documents/whitepapers\\_rl/LAN-1863-AEN.pdf](http://csmedia.corning.com/opcomm//Resource_Documents/whitepapers_rl/LAN-1863-AEN.pdf)

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## Ordering Information

Part Number	288ZUF-T4101D20
Product Description	FREEDM <sup>®</sup> Loose Tube, Gel-Free Cable, Riser, 288 F, SMF-28 <sup>®</sup> Ultra fiber, Single-mode (OS2)
EAN Code	4056418141572



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