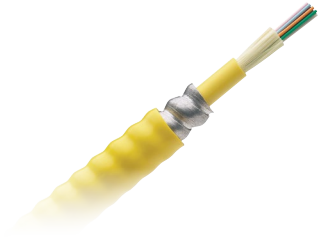


## technical information

Panduit® Opti-Core® Fiber Optic Indoor Interlocking Armored Cable is an integral part of the Panduit end-to-end fiber optic solution, designed to support today's data needs while meeting tomorrow's ever-advancing network requirements. This cable is used within buildings to provide high-density connectivity and ease of installation. Interlocking aluminum armor eliminates the need for inner duct or conduit to provide a smaller crush resistant pathway for improved design flexibility and lower installed cost. Applications include intra-building backbones, building backbones, and horizontal installations for riser (OFCR), plenum (OFCP), and harsh environments. Opti-Core® Fiber Optic Interlocking Armored Cable features the highest quality singlemode, OM3, OM4 and OM5 laser optimized fiber. RoHS compliant cable is available in fiber counts from 6 to 144 fibers.



## application

Used in intrabuilding backbone, building backbone, and horizontal installations and harsh environments.

## standards

|                                       |  |
|---------------------------------------|--|
| UL-1666<br>NFPA 262<br>ROHS Compliant | ANSI/ICEA S-83-596<br>CSA 22.2<br>Telcordia GR-409 |
|---------------------------------------|--|

## construction

|              |             |
|--------------|-------------|
| Inner sheath | PVC         |
| Outer sheath | PVC or PVDF |

## mechanical properties

| Mechanical Properties         | Riser   | Plenum   |
|-------------------------------|---|--|
| Tensile strength(<12 fibers)  | Installation: 150 lbs. (667 N)<br>Long term: 450 lbs. (200 N)   | Installation: 100 lbs. (440 N)<br>Long term: 30 lbs. (132 N)   |
| Tensile strength (>12 fibers) | Installation: 300 lbs. (1335N)<br>Long term: 90 lbs. (400 N)  | Installation: 150 lbs. (667 N)<br>Long term: 40 lbs. (200 N)   |
| Compressive strength (crush)  | 250lb/inches  |  |
| Impact                        | 3 at 8.83 N*m   |  |
| Temperature range             | Storage: -40°F to +185°F ( -40°C to 85°C )<br>Operation:- 40°F to +167°F ( -40°C to 75°C)<br>Installation: -4°F to +140°F ( -20°C to +60°C) | -40°F to 185°F ( -40°C to 85°C )<br>-40°F to 167°F ( -40°C to 75°C )<br>32°F to 140°F (-0°C to 60°C) |

## physical properties – riser

| Fiber Count | Cable Diameter Inches | Long Term Bend Radius Inches | Installation Bend Radius Inches | Cable Weight Lbs./kft |
|-------------|-----------------------|------------------------------|---------------------------------|-----------------------|
| 6           | 0.56                  | 5.6                          | 11.2                            | 132                   |
| 12          | 0.59                  | 5.9                          | 11.8                            | 146                   |
| 24          | 0.63                  | 6.3                          | 12.6                            | 161                   |
| 48          | 0.96                  | 9.6                          | 19.2                            | 381                   |

# Opti-Core® Fiber Optic Cable, Distribution Interlocking Armored - Americas

## physical properties – plenum

| Fiber Count | Cable Diameter Inches | Long Term Bend Radius Inches | Installation Bend Radius Inches | Cable Weight Lbs./kft |
|-------------|-----------------------|------------------------------|---------------------------------|-----------------------|
| 6           | 0.47                  | 4.7                          | 9.4                             | 87.0                  |
| 12          | 0.51                  | 5.1                          | 10.2                            | 95                    |
| 24          | 0.73                  | 7.3                          | 14.6                            | 167                   |
| 48          | 0.94                  | 8.1                          | 16.2                            | 370                   |
| 72          | 1.05                  | 9.4                          | 21.3                            | 502                   |
| 96          | 1.18                  | 10.9                         | 21.8                            | 642                   |
| 144         | 1.22                  | 12.2                         | 24.4                            | 715                   |

## optical properties: maximum attenuation (cabled)

|                            |  |
|----------------------------|--|
| Singlemode (ITU-T G.652.D) | 0.70 dB/km @ 1310 nm, 0.70 dB/km @ 1550 nm |
| OM3 Multimode              | 3.0 dB/km @ 850 nm, 1.5 dB/km @ 1300 nm    |
| OM4 Multimode              | 3.0 dB/km @ 850 nm, 1.5 dB/km @ 1300 nm    |
| OM5 Multimode              | 3.0 dB/km @ 850 nm, 1.5 dB/km @ 1300 nm    |

## fiber color code

|                               |                               |                              |                                 |
|-------------------------------|-------------------------------|------------------------------|---------------------------------|
| 1 Blue<br>2 Orange<br>3 Green | 4 Brown<br>5 Slate<br>6 White | 7 Red<br>8 Black<br>9 Yellow | 10 Violet<br>11 Rose<br>12 Aqua |
|-------------------------------|-------------------------------|------------------------------|---------------------------------|

Sheath color is yellow for singlemode, aqua for OM3 & OM4, lime green for OM5.

## ordering information

\*Example: FOPP W24Y = Fiber Cable, Indoor Interlocking Armored, Plenum Rated, OM5, 24 Fibers

|                  |          |          |          |          |          |          |          |          |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|
| <b>Character</b> | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> | <b>6</b> | <b>7</b> | <b>8</b> |
| <b>Example*</b>  | <b>F</b> | <b>O</b> | <b>P</b> | <b>P</b> | <b>W</b> | <b>2</b> | <b>4</b> | <b>Y</b> |

### 1 & 2 – Fiber Product

FS = Fiber Cable, Americas, Singlemode

FO = Fiber Cable, Americas, Multimode

### 3 – Cable Construction

P = Indoor Interlocking Armored

### 4 – Flame Rating

R = Riser (up to 48 fibers)  
P = Plenum

### 5 – Fiber Type

9 = Singlemode (ITU G.652.D)  
X = Multimode OM3 (up to 48 fibers)  
Z = Multimode OM4 (up to 48 fibers)  
W = Multimode OM5 (up to 24 fibers, plenum only)

### 6 & 7 – Fiber Count

06 = 6-Fiber  
12 = 12-Fiber  
24 = 24-Fiber  
48 = 48-Fiber  
72 = 72-Fiber  
96 = 96-Fiber  
1A = 144-Fiber

### 8 – RoHS

Y = Yes

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