

# Opti-Core™ Fiber Optic Cable, Distribution Interlocking Armored

North America and  
Latin America

**PANDUIT**®  
DATA SHEET

## technical information

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



## applications

Opti-Core Fiber Optic Indoor Interlocking Armored Cable is used in intrabuilding backbone, building backbone, and horizontal installations and harsh environments.

## construction

Inner sheath	PVC
Outer sheath	PVC or PVDF

## standards

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

## mechanical properties

	Riser	Plenum
<b>Tensile strength (&lt;12 fibers):</b>		
Installation:	148.37 lbs. (660 N)	98.92 lbs. (440 N)
Long term:	44.96 lbs. (200 N)	29.67 lbs. (132 N)
<b>Tensile strength (&gt;12 fibers):</b>		
Installation:	296.75 lbs. (1320 N)	148.37 lbs. (660 N)
Long term:	89.92 lbs. (400 N)	44.96 lbs. (200 N)
<b>Compressive strength (crush):</b>		
	250 lbs./in.	
<b>Impact:</b>		
	3 at 8.83 N*m	
<b>Temperature range:</b>		
Storage:	-40°F to 158°F (-40°C to 70°C)	-40°F to 158°F (-40°C to 70°C)
Operation:	-4°F to 158°F (-20°C to 70°C)	32°F to 158°F (0°C to 70°C)
Installation:	17°F to 140°F (-10°C to 60°C)	32°F to 140°F (0°C to 60°C)

## physical properties – riser

Fiber Count	Cable Diameter (In.)	Long Term Bend Radius (In.)	Installation Bend Radius (In.)	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

## physical properties – plenum

Fiber Count	Cable Diameter (In.)	Long Term Bend Radius (In.)	Installation Bend Radius (In.)	Cable Weight (Lbs./kft)
6	0.47	4.7	9.4	87
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	10.31	21.3	502
96	1.18	10.9	21.8	642
144	1.22	12.2	24.4	715

# Opti-Core™ Fiber Optic Cable, Distribution Interlocking Armored

## 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	3.5 dB/km @ 850 nm, 1.5 dB/km @ 1300 nm
OM4 Multimode	3.5 dB/km @ 850 nm, 1.5 dB/km @ 1300 nm
OM5 Multimode	3.5 dB/km @ 850 nm, 1.5 dB/km @ 1300 nm

## fiber color code

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

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

## ordering information

\*Example: FOPPW24Y = Fiber Cable, Indoor Interlocking Armored, Plenum Rated, OM5, 24 Fibers

Character	1	2	3	4	5	6	7	8
Example	F	O	P	P	W	2	4	Y

### 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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