

## technical information

Opti-Core Indoor/Outdoor All-Dielectric Cable with tight buffered fibers shall be an integral part of the 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 provide water blocking technology, high density, and easy installation in transitional aerial and duct applications and entrance facilities, and the 900µm tight-buffered fibers provides easy connectorization. The tight-buffered fibers surrounded by aramid yarn strength members shall combine usability indoors and out. Cables with greater than 24 fibers shall feature a sub-unit design that simplifies fiber identification, provides easy access and routing of the fibers. It shall increase cable durability with a dielectric central strength member. Opti-Core Fiber Optic Indoor/Outdoor Riser (OFNR) and Plenum (OFNP) Rated All-Dielectric Cable with tight buffered fibers are shall be tested in accordance with Telcordia GR-20, Issue 2, GR-409 and with relevant EIA/TIA-455 series FOTPs for fiber optic cable. All multimode and singlemode cable shall be available in 6, 12, and 24-fiber counts as a non-subunitized design and in 48, 72, and 96-fiber counts (144 for Riser) as a sub-unitized design. All Opti-Core fiber cable shall be RoHS compliant.



## applications

The Opti-Core Indoor/Outdoor All-Dielectric Cables provide an effective solution for inter-building and building transition applications utilizing field installable connectors. This cable is available in both riser rated and plenum rated version for deployment in any inside plant fire-code application. The UV-resistant outer jacket, coupled with dry water-blocking technology, address environmental concerns for outdoor use.

## standards

TIA/EIA-568	ANSI/ICEA S-83-596
ANSI/ICEA S-104-696	CSA 22.2
UL-1666	Telcordia GR-409
NFPA 262	Telcordia GR-20
ROHS Compliant	

## construction

900µm Tight buffered PVC				
Fiber color code	1 Blue	7 Red	13 Blue with Black tracer	19 Red with Black tracer
	2 Orange	8 Black	14 Orange with Black tracer	20 Black with White tracer
	3 Green	9 Yellow	15 Green with Black tracer	21 Yellow with Black tracer
	4 Brown	10 Violet	16 Brown with Black tracer	22 Violet with Black tracer
	5 Slate	11 Rose	17 Slate with Black tracer	23 Rose with Black tracer
	6 White	12 Aqua	18 White with Black tracer	24 Aqua with Black tracer
Water blocking	Aramid yarns with water blocking capability			
Inner sheath	PVC			
Outer sheath	PVC, Black			

# Opti-Core™ Fiber Optic Indoor/Outdoor All-Dielectric Cable with Tight Buffered Fibers – North America and Latin America

## mechanical properties

<b>Tensile strength (Installation)</b>	<p><b>Riser:</b> 6 to 12-fibers: 100 lbs. (12 fiber is rated for 150 lbs.) 24-fibers: 300 lbs. 48 to 144-fibers (sub-unitized): 600 lbs.</p> <p><b>Plenum:</b> 6-fibers: 100 lbs. 12 to 24-fibers: 150 lbs. 48-fibers (sub-unitized): 400 lbs. 72 to 96-fibers (sub-unitized): 600 lbs.</p>
<b>Tensile strength (long-term)</b>	<p><b>Riser:</b> 6 to 12-fibers: 30 lbs. 24-fibers: 90 lbs. 48 to 144-fibers (sub-unitized): 180 lbs.</p> <p><b>Plenum:</b> 6-fibers: 30 lbs. 12 to 24-fibers: 45 lbs. 48-fibers (sub-unitized): 120 lbs. 72 to 96-fibers (sub-unitized): 180 lbs.</p>
<b>Compressive strength (crush)</b>	220 N/cm
<b>Impact</b>	Per FOTP 25
<b>Torsion</b>	Per FOTP 85
<b>Kink</b>	Per FOTP 104
<b>Temperature range</b>	<p>Shipping/Storage: (Riser) -40°F to +158°F (-40°C to +70°C) (Plenum) -40°F to +158°F (-40°C to +70°C)</p> <p>Installation: (Riser) 32°F to +140°F (0°C to +60°C) (Plenum) +32°F to +140°F (0°C to +60°C)</p> <p>Operation: (Riser) -40°F to +158°F (-40°C to +70°C) (Plenum) -40°F to +158°F (-40°C to +70°C)</p>
<b>Water penetration</b>	No water on free end

## physical properties – riser

Fiber Count	Cable O.D. Inches (mm)	Long-Term Bend Radius Inches (cm)	Installation Bend Radius Inches (cm)	Cable Weight Lb./kft. (kg/km)
6	0.24 (6.0)	2.4 (6.1)	4.8 (12.2)	21 (31)
12	0.28 (7.0)	2.8 (7.2)	5.6 (14.3)	30 (45)
24	0.32 (8.1)	5.6 (14.3)	6.4 (16.3)	43 (64)
48	0.66 (16.8)	6.6 (16.8)	13.2 (33.6)	140 (209)
72	0.80 (20.3)	8.0 (20.4)	16.0 (40.7)	208 (309)
96	0.95 (24.2)	9.5 (24.2)	19.0 (48.3)	296 (441)
144	1.02 (25.9)	10.2 (25.9)	20.4 (51.9)	347 (516)

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## physical properties-plenum

Fiber Count	Cable O.D. Inches (mm)	Long-Term Bend Radius Inches (cm)	Installation Bend Radius Inches (cm)	Cable Weight Lb./kft. (kg/km)
6	0.21 (5.3)	2.09 (5.3)	4.0 (10.2)	17.81 (26.5)
12	0.25 (6.3)	2.48 (6.3)	4.8 (12.2)	24.59 (36.6)
24	0.31 (8)	4.72 (12)	8.2 (20.9)	42.4 (63.1)
48	0.55 (13.9)	5.5 (14.0)	11.0 (28.0)	140 (209)
72	0.65 (16.6)	6.5 (16.6)	13.0 (33.1)	210 (312)
96	0.84 (21.3)	8.4 (21.4)	16.8 (42.7)	345 (514)
144	1.02 (25.9)	10.2 (25.9)	20.4 (51.9)	347 (516)

## ordering information

Example: FOKPX06 Fiber, Indoor/Outdoor Tight Buffered Unarmored, Plenum Rated, OM3, 6 Fiber

Character	1	2	3	4	5	6	7
Example	F	O	K	P	X	0	6

### 1 and 2 – Fiber Product

FS = Fiber- OM1  
FO = Fiber- OM3, OM4

### 3 – Cable Construction

K = Indoor/Outdoor  
Tight Buffered Unarmored

### 4 – Flame Rating

R = Riser  
P = Plenum

### 5 – Fiber Type

9 = OS2 9/125µm  
6 = OM1 62.5/125µm  
X = OM3 10G 50/125µm  
Z = OM4 10G 50/125µm

### 6 and 7 – Fiber Count

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

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