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

Tensile strength (Installation)	**Riser:** 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. **Plenum:** 6-fibers: 100 lbs. 12 to 24-fibers: 150 lbs. 48-fibers (sub-unitized): 400 lbs. 72 to 96-fibers (sub-unitized): 600 lbs.
Tensile strength (long-term)	**Riser:** 6 to 12-fibers: 30 lbs. 24-fibers: 90 lbs. 48 to 144-fibers (sub-unitized): 180 lbs. **Plenum:** 6-fibers: 30 lbs. 12 to 24-fibers: 45 lbs. 48-fibers (sub-unitized): 120 lbs. 72 to 96-fibers (sub-unitized): 180 lbs.
Compressive strength (crush)	220 N/cm
Impact	Per FOTP 25
Torsion	Per FOTP 85
Kink	Per FOTP 104
Temperature range	Shipping/Storage: (Riser) -40°F to +158°F (-40°C to +70°C) (Plenum) -40°F to +158°F (-40°C to +70°C) Installation: (Riser) 32°F to +140°F (0°C to +60°C) (Plenum) +32°F to +140°F (0°C to +60°C) Operation: (Riser) -40°F to +158°F (-40°C to +70°C) (Plenum) -40°F to +158°F (-40°C to +70°C)
Water penetration	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)

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

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

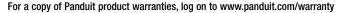**4 – Flame Rating**

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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