Opti-Core™ Fiber Optic Indoor/Outdoor Armored Cable with Tight Buffered Fibers - Americas

PANDUIT®
CABLE DATA SHEET

technical information

Panduit® Opti-Core® Indoor/Outdoor Armored Cable with tight buffered fibers are 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 provides water blocking technology, high density, and easy installation in transitional aerial and duct applications and entrance facilities, and the 900µm tight-buffered fibers provide easy connectorization. The tight-buffered fibers surrounded by aramid yarn strength members combine usability indoors and out. 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. Cables with greater than 24 fibers feature a sub-unit design that simplifies fiber identification, provides easy access and routing of the fibers. It also increases cable durability with a dielectric central strength member. Opti-Core® Fiber Optic Indoor/Outdoor Riser (OFCR) and Plenum (OFCP) Rated Cable with tight buffered fibers are 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 is available in 2, 4, 6, 8, 12, and 24-fiber counts as a "non-subunitized" design and in 36, 48, 72, and 96-fiber counts (144 for Riser) as a "sub-unitized" design. All Opti-Core® fiber cable is RoHS compliant.

application

These 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

900um 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			

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mechanical properties

Tensile strength (Installation)	E1	Riser: 2 to 12-fibers: 100 lbs. 18 to 24-fibers: 300 lbs. 36 to 144-fibers (sub-unitized): 600 lbs. Plenum: 2 to 8-fibers: 100 lbs. 12 to 24-fibers: 150 lbs. 36 to 48-fibers (sub-unitized): 400 lbs. 72 to 96-fibers (sub-unitized): 600 lbs.
Tensile strength (long-term)	E1	Riser: 2 to 12-fibers: 30 lbs. 18 to 24-fibers: 90 lbs. 24 to 144-fibers (sub-unitized): 180 lbs. Plenum: 2 to 8-fibers: 30 lbs. 12 to 24-fibers: 45 lbs. 36 to 48-fibers (sub-unitized): 120 lbs. 72 to 96-fibers (sub-unitized): 180 lbs.
Compressive strength (crush)	E3	440 PSI
Impact	E4	Per FOTP 25
Torsion	E7	Per FOTP 85
Kink	E10	Per FOTP 104
Temperature range	F1	Shipping/Storage: (Riser) -40 ºF to +176 ºF (-40 ºC to +80 ºC) (Plenum) -40 ºF to +176 ºF (-40 ºC to +80 ºC) Installation: (Riser) +14 ºF to +140 ºF (-10 ºC to +60 º C) (Plenum) +32 ºF to +140 ºF (0 ºC to +60 ºC) Operation: (Riser) -40 ºF to +176 ºF (-40 ºC to +80 º C) (Plenum) -40 ºF to +176 ºF (-40 ºC to +80 ºC)

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)
2	0.52 (13.1)	5.2 (13.2)	10.4 (26.5)	121 (179)
4	0.55 (14.0)	5.5 (14.0)	11.0 (28.0)	128 (190)
6	0.56 (14.2)	5.6 (14.3)	11.2 (28.5)	132 (196)
8	0.58 (14.6)	5.8 (14.8)	11.6 (29.5)	135 (201)
12	0.59 (14.9)	5.9 (15.0)	11.8 (30.0)	146 (217)
24	0.65 (16.5)	6.5 (16.6)	13.0 (33.1)	158 (235)
36	0.96 (24.3)	9.6 (24.4)	19.2 (48.8)	376 (560)
48	0.95 (24.1)	9.5 (24.2)	19.0 (48.3)	368 (547)
72	1.10 (27.9)	11.0 (28.0)	22.0 (55.9)	472 (703)
96	1.29 (32.7)	12.9 (32.8)	25.8 (65.6)	569 (847)
144	1.35 (34.3)	13.5 (34.3)	27.0 (68.6)	676 (1006)

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physical properties-plenum

Fiber Count	Cable O.D. Inches (mm)	Installation Bend Radius Inches (cm)	Long-Term Bend Radius Inches (cm)	Cable Weight Lb./kft. (kg/km)
2	0.45 (11.4)	4.5 (11.5)	9.0 (22.9)	81 (120)
4	0.45 (11.4)	4.5 (11.5)	9.0 (22.9)	85 (127)
6	0.47 (11.9)	4.7 (12.0)	9.4 (23.9)	87 (130)
8	0.48 (12.1)	4.8 (12.2)	9.4 (23.9)	91 (135)
12	0.51 (13.0)	5.1 (13.0)	10.2 (25.9)	95 (142)
24	0.58 (14.7)	5.8 (14.8)	11.6 (29.5)	131 (195)
36	0.938 (23.8)	8.0 (20.4)	16.0 (40.7)	167 (248)
48	0.938 (23.8)	8.1 (20.6)	16.2 (41.2)	243 (363)
72	1.052 (26.7)	9.4 (23.9)	18.8 (47.8)	361 (537)
96	1.189 (30.2)	10.9 (27.7)	21.8 (55.4)	511 (760)
144	1.35 (34.3)	13.5 (34.3)	27.0 (68.6)	676 (1006)

ordering information

Example: FSLR512- Fiber, Indoor/Outdoor Tight Buffered Armored, Riser Rated, OM2, 12-Fiber

Character	1	2	3	4	5	6	7
Example	F	S	L	R	5	1	2

1 and 2 – Fiber Product
- FS = Fiber- OM1, OM2, OS1
- FO = Fiber- OM3, OM4

3 – Cable Construction
- L - Indoor/Outdoor Tight Buffered Armored

4 – Flame Rating
- R - Riser
- P - Plenum

5 – Fiber Type
- 9 = OS1/OS2 9/125µm
- 6 = OM1 62.5/125µm
- 5 = OM2 50/125µm
- X = OM3 10G 50/125µm
- Z = OM4 10G 50/125µm

6 and 7 – Fiber Count
- 02 = 2-Fiber
- 04 = 4-Fiber
- 06 = 6-Fiber
- 08 = 8-Fiber
- 12 = 12-Fiber
- 24 = 24-Fiber
- 36 = 36-Fiber
- 48 = 48-Fiber
- 72 = 72-Fiber
- 96 = 96-Fiber
- 1A = 144-Fiber

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