

technical information

Panduit™ Opti-Core™ Gel-Filled All-Dielectric Stranded Tube Outside Plant (OSP) Cable offers gel-filled water-blocking technology, UV resistance, and high density to provide standards compliance and flexibility for outdoor use. Opti-Core™ All-Dielectric OSP Cable, for aerial and duct applications, features a non-metallic construction that eliminates the need to ground or bond. Opti-Core™ All-Dielectric Stranded Tube OSP Cable is available in singlemode (meets OS2 ITU-T G.652.D standards) OM1 multimode, and bend-insensitive OM2, OM3, and OM4 fibre types. Available in fibre counts from 36 to 144 fibres as a “stranded loose tube” design. All Opti-Core™ Fibre Optic Cable is RoHS compliant.



application

This cable can be used in outdoor data communication connections such as Telecom trunk lines, telecom access net lines, and CATV trunk lines. With its MDPE sheathing this cable is ideal for outdoor installation. The cable features a high tensile strength and a degree of rodent protection, effective in many cases.

standards

IEC 60794-3 IEC 60794-3-10 IEC 60974-3-12	ISO 11801 2 nd edition EN 50 173-1 EN 187 000
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construction

Central strength member	02.5mm FRP rod
Loose tube	02.3mm jelly-filled loose tube with 2-12 fibres each, up to 22 tubes in two layers for lay up
Water blocking	The core is water blocked using swellable tape and yarn
Wrapping	Swellable tape
Sheath	1.5mm black MDPE, IEC 60811, IEC 60708

fibre colour code

Fibre colour code	1 Red	4 Yellow	7 Brown	10 Black
	2 Green	5 White	8 Violet	11 Orange
	3 Blue	6 Grey	9 Turquoise	12 Pink

Opti-Core™ Gel-Filled All Dielectric Stranded Tube Outside Plant Cable - EMEA

mechanical properties

Tensile strength (installation)	E1	1800N
Tensile strength (short-term)	E1	1200N
Compressive strength (crush)	E3	3000N
Impact	E4	20 Nm
Torsion	E7	5 cycles ±1 turn
Kink	E10	The cables do not form a kink when a loop is drawn together to a diameter 12 times the cable nominal diameter
Temperature range	F1	The cables can bear temperature cycling between -40 °C to +70 °C The cables will operate without any attenuation interval -30 °C to +60 °C The cables will operate with a maximum attenuation variation of 0.1dB/km in the temperature interval -40 °C to +70 °C
Water penetration	F5B	No water on free end

physical properties

Fibre Count	Cable O.D. (mm)	Long-Term Bend Radius (mm)	Installation Bend Radius (mm)	Cable Weight (kg/km)
6	10.5	160	160	90
8	10.5	160	160	90
12	10.5	160	160	90
24	10.5	160	160	90
36	10.5	160	160	90
48	10.5	160	160	90
72	10.5	160	160	90
96	12.0	180	180	115
144	15.0	225	225	180

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ordering information

Example: FPTN512- Fibre, Gel-Filled All Dielectric Stranded Tube Outside Plant Cable, OM2, 12-Fibre

Character	1	2	3	4	5	6	7
Example	F	P	T	N	5	1	2

1 and 2 – Fibre Product

FP = Fibre- OM1, OM2, OS2
FQ = Fibre- OM3, OM4,

3 – Cable Construction

T = Outside plant, gel-filled,
all dielectric, unarmored
stranded tube

4 – Flame Rating

N = Non-rated

5 – Fibre Type

9 = OS2 9/125µm
5 = OM2 50/125µm
6 = OM1 62.5/125µm
X = OM3 10G 50/125µm
Z = OM4 10G 50/125µm

6 and 7 – Fibre Count

06 = 6-fibre
08 = 8-fibre
12 = 12-fibre
24 = 24-fibre
36 = 36-fibre
48 = 48-fibre
72 = 72-fibre
96 = 96-fibre
144 = 144-fibre

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For a copy of Panduit product warranties, log on to www.panduit.com/warranty

For more information

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