

## 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 <sup>nd</sup> 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

<b>Tensile strength (installation)</b>	E1	1800N
<b>Tensile strength (short-term)</b>	E1	1200N
<b>Compressive strength (crush)</b>	E3	3000N
<b>Impact</b>	E4	20 Nm
<b>Torsion</b>	E7	5 cycles ±1 turn
<b>Kink</b>	E10	The cables do not form a kink when a loop is drawn together to a diameter 12 times the cable nominal diameter
<b>Temperature range</b>	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
<b>Water penetration</b>	F5B	No water on free end

## physical properties

<b>Fibre Count</b>	<b>Cable O.D. (mm)</b>	<b>Long-Term Bend Radius (mm)</b>	<b>Installation Bend Radius (mm)</b>	<b>Cable Weight (kg/km)</b>
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

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

## ordering information

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

<b>Character</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
<b>Example</b>	<b>F</b>	<b>P</b>	<b>T</b>	<b>N</b>	<b>5</b>	<b>1</b>	<b>2</b>

### 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

## WORLDWIDE SUBSIDIARIES AND SALES OFFICES

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