

# Opti-Core™ Gel-Filled Armored Central Tube Outside Plant Cable – Asia Pacific

## specifications

The fiber cable shall contain up to 24 fibers and have a loose tube construction that is water-blocked, UV resistant and armored for harsh outdoor environmental demands. In order to be compact and lightweight, the cable shall use a central loose tube design. It shall comply with common industry standards for outside plant applications and have options for singlemode (OS2) or multimode fibers (OM3, OM4) to support 10 Gb/s network transmission.



## application

- Designed for outside plant installation in ducts
- Supports network transmission speeds up to 10 Gb/s for link lengths up to 300 meters for OM3 and up to 550 meters for OM4 with an 850nm source per IEEE 802.3ae 10 GbE standard

## standards

IEC 60794-3

RoHS Compliant

## key features and benefits

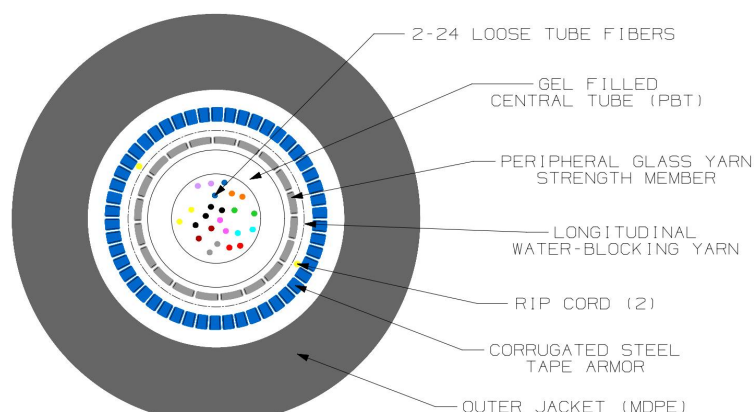
|                                                          |                                                                                                    |
|----------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| <b>Gel-filled tube and water-blocking yarn</b>           | Blocks water from entering the cable and damaging the optical fibers                               |
| <b>Corrugated steel tape armor</b>                       | Provides crush resistance                                                                          |
| <b>UV Resistant outer jacket</b>                         | Resists degradation due to sunlight exposure                                                       |
| <b>Central tube design</b>                               | Allows smaller cable diameter and lighter weight versus stranded tube design                       |
| <b>Highest quality OM3 and OM4 laser optimized fiber</b> | Supports 10 Gb/s applications while maintaining compatibility with existing 50µm multimode systems |

## fiber color sequence

|      |        |       |       |      |       |     |       |        |        |      |      |
|------|--------|-------|-------|------|-------|-----|-------|--------|--------|------|------|
| 1    | 2      | 3     | 4     | 5    | 6     | 7   | 8     | 9      | 10     | 11   | 12   |
| Blue | Orange | Green | Brown | Grey | White | Red | Black | Yellow | Violet | Pink | Aqua |

Fibers 13 through 24 repeat this color sequence and have a Black tracer. Fiber 20 is colored "Natural" with a Black tracer.

## 2 to 24-Fiber Cable



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## physical and mechanical properties

|                                            |                                                                                                                                                        |
|--------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| Cable construction                         | 250µm coated fibers in gel-filled tube, glass strength yarns, water-blocking yarns, 2 ripcords, corrugated steel tape armor, black outer jacket (MDPE) |
| Outside diameter (nominal)                 | 8.3mm                                                                                                                                                  |
| Bend radius (installation/short term)      | 16.6cm                                                                                                                                                 |
| Bend radius (operation/long term)          | 8.3cm                                                                                                                                                  |
| Weight                                     | 90 kg/km                                                                                                                                               |
| Tensile strength (installation/short term) | 2670 N                                                                                                                                                 |
| Tensile strength (operation/long term)     | 800 N, fiber strain ≤ 0.2%                                                                                                                             |
| Compressive strength (crush)               | 2200 N/100mm                                                                                                                                           |
| Temperature range                          | Storage: -40°C to +70°C<br>Installation: -30°C to +60°C<br>Operation: -40°C to 70°C                                                                    |

## optical properties: maximum attenuation

|                                |                                       |
|--------------------------------|---------------------------------------|
| OS2 singlemode (ITU-T G.652.D) | 0.4dB/km @ 1310nm, 0.3 dB/km @ 1550nm |
| OM3 multimode                  | 3.5dB/km @ 850nm, 1.5 dB/km @ 1300nm  |
| OM4 multimode                  | 3.5dB/km @ 850nm, 1.5 dB/km @ 1300nm  |

## ordering information

\*Example: FLSN912, 9µm OS2 12 Fiber Outside Plant Armored Central Tube Cable, 250µm Fibers

|           |   |   |   |   |   |   |   |
|-----------|---|---|---|---|---|---|---|
| Character | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Example*  | F | L | S | N | 9 | 1 | 2 |

### 1 and 2 – Fiber Product

FL = Fiber (Asia Pacific)

### 3 – Cable Construction

S = Gel-filled armored outside plant, central tube (up to 24 fibers)

### 4 – Flame Rating

N = Non-rated

### 5 – Fiber Type

9 = OS2 9/125µm

X = OM3 10 GbE 50/125µm

Z = OM4 10 GbE 50/125µm

### 6 and 7 – Fiber Count

02 = 2-fiber (OS2 only)

04 = 4-fiber (OS2 only)

06 = 6 fiber

08 = 8 fiber (OS2 only)

12 = 12 fiber

24 = 24 fiber

For fiber counts greater than 24, see Panduit OptiCore™ FLWN\*\*\* Cables, which use a stranded tube design.

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