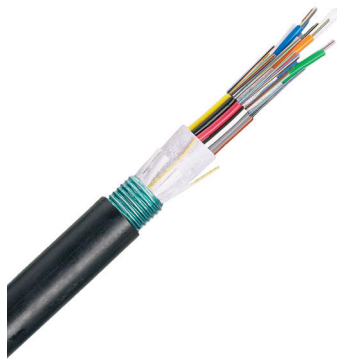


# Opti-Core™ Gel-Filled Armored Stranded Tube Outside Plant Cable – Asia Pacific

## technical information

Panduit™ Armored Stranded Tube Outside Plant Fiber Optic Cable offers gel-filled water-blocking technology, UV resistance, and high density to provide standards compliance and flexibility for outdoor use. Opti-Core™ Armored OSP Cable has a single outer jacket and corrugated steel armor to provide superior crush resistance for direct burial applications. It also meets or exceeds the performance requirements of Telcordia GR-20, Issue 2 and ICEA 640 to withstand harsh outdoor environmental demands. Opti-Core™ Armored OSP Cable is available in singlemode (meets OS2 ITU-T G.652.D standards) in fiber counts from 48 to 144 fibers as a “stranded loose tube” design. All Opti-Core™ Fiber Optic Cable is RoHS compliant.



## applications

Well suited for duct or direct burial applications.

## standards

IEC/EN 60794-3

## construction

|                                |                         |   |          |           |
|--------------------------------|-------------------------|---|----------|-----------|
| <b>Central strength member</b> | 48-fibers:              | 2.5mm nominal                                   |          |           |
|                                | 72-fibers:              | 2.7mm nominal                                   |          |           |
|                                | 96-fibers:              | 2.5mm FRP* rod built up with sheath to be 4.4mm |          |           |
|                                | 144-fibers:             | 2.5mm FRP* rod built up with sheath to be 7.6mm |          |           |
| <b>Loose tube</b>              | 48-fibers:              | 2.2mm nominal                                   |          |           |
|                                | 72, 96, and 144-fibers: | 2.5mm nominal                                   |          |           |
| <b>Fiber colour code</b>       | 1 Blue                  | 4 Brown   | 7 Red    | 10 Violet |
|                                | 2 Orange                | 5 Grey  | 8 Black  | 11 Pink   |
|                                | 3 Green                 | 6 White   | 9 Yellow | 12 Aqua   |
| <b>Water-blocking</b>          | Cable jelly             |   |          |           |
| <b>Wrapping</b>                | Polyester tape          |   |          |           |
| <b>Outer sheath thickness</b>  | PE 1.7mm nominal        |   |          |           |

\*FRP = Fiberglass Reinforced Plastic

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## mechanical properties

|                                 |   |
|---------------------------------|---|
| Tensile strength (installation) | 2700 N  |
| Tensile strength (long-term)    | 1700 N  |
| Compressive strength (crush)    | 220 N/cm  |
| Impact                          | 4.4 Nm, 3 impacts, r = 300mm  |
| Torsion                         | ±180°, 10 cycles  |
| Kink                            | R = 10 × D (cable diameter)   |
| Temperature range               | Shipping/Storage: -40°C to +70°C<br>Installation: -10°C to +60°C<br>Operation: -30°C to +70°C |
| Water penetration               | No water leakage after 24 hours   |

## physical properties

| Fiber Count | Cable Diameter (mm) | Installation Bend Radius (mm) | Long-Term Bend Radius (mm) | Cable Weight (kg/km) | Number of Sub-Unit Tubes + Filler Tubes |
|-------------|---------------------|-------------------------------|----------------------------|----------------------|---|
| 48          | 12.0 nominal        | 256                           | 120                        | 148                  | 6                                       |
| 72          | 12.8 nominal        | 290                           | 128                        | 164                  | 6                                       |
| 96          | 14.5 nominal        | 354                           | 145                        | 207                  | 8                                       |
| 144         | 17.7 nominal        | 361                           | 177                        | 292                  | 12                                      |

## optical properties

### Maximum Attenuation of Cabled Fiber

OS2 Singlemode (ITU-T G.652.D) 0.4dB/km @ 1310nm, 0.3dB/km @ 1550nm

## ordering information

Example: FLWN948 Fiber, Gel-Filled Armored Outside Plant Cable, Non Rated, OS2, 48-Fiber

Character

Example

|   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| F | L | W | N | 9 | 4 | 8 |

### 1 and 2 – Fiber Product

FL = Fiber Cable, APAC

### 3 – Cable Construction

W = Gel-Filled Armored  
Outside Plant Cable

### 4 – Flame Rating

N = Non Rated

### 5 – Fiber Type

9 = OS2 9/125µm

### 6 and 7 – Fiber Count

48 = 48-Fiber

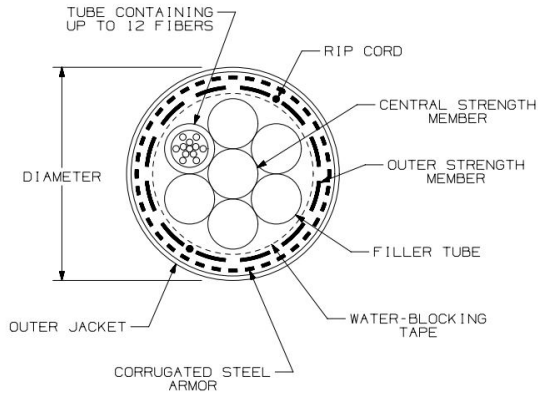
72 = 72-Fiber

96 = 96-Fiber

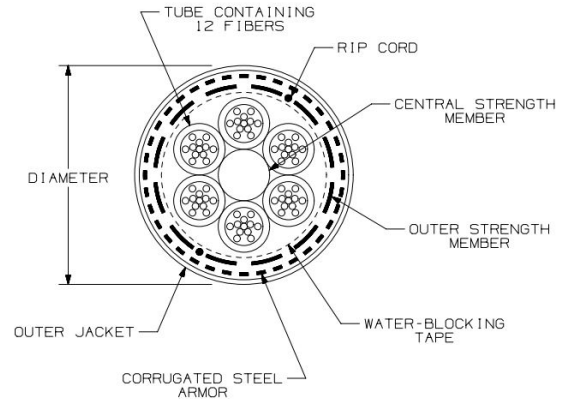
1A = 144-Fiber

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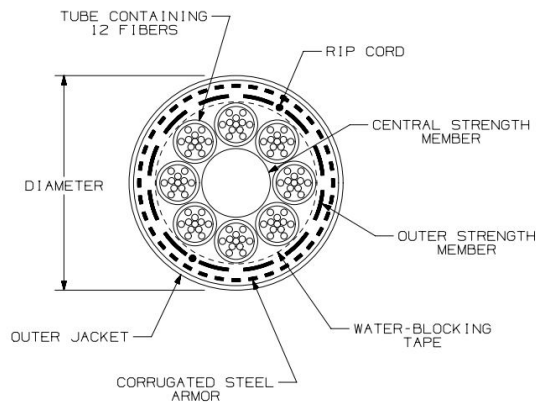
## engineer drawings



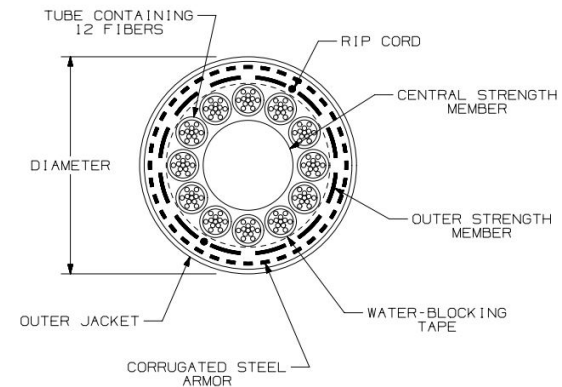
48 Fiber Count



72 Fiber Count



96 Fiber Count



144 Fiber Count

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