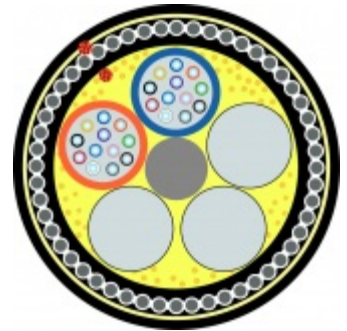


## Underwater Fiber Optic Cable

**Part Number:** **F90240263B**

**Applications:** Backbone cabling, General purpose armored Outdoor, Long Distance OSP, Rugged environments, Installed in soft bedded trenches or suitably anchored and protected on the sea-floor, Shallow Water Installations, Shallow Water Applications to 100 m. Depths

**General Construction:** The cable contains 24 Singlemode color-coded optical fibers contained in 2 color-coded loose tubes. These tubes are filled with a thixotropic gel to prevent the ingress of water and SZ stranded around a dielectric central strength member. A specially formulated gel is applied between all the interstices in the cable core to block water passage. Fillers are used as needed to preserve cable geometry. Fiber-glass strength yarns reinforce the cable core beneath an inner jacket. A layer of galvanized steel wires is stranded around the inner jacket to serve as an armor. An outer jacket completes the cable structure.



**Outer Jacket Material:** PE  
**Outer Diameter:** 13.5 mm nom.  
**Weight:** 292 kg/km

## Design & Materials

|                                  |                                      |
|----------------------------------|--------------------------------------|
| <b>Buffer Material:</b>          | PBT                                  |
| <b>Tube Diameter:</b>            | 2.1 mm nom.                          |
| <b>Central Strength Member:</b>  | FRP                                  |
| <b>Cabling:</b>                  | SZ                                   |
| <b>Strength Elements:</b>        | E-Glass Yarns                        |
| <b>Armoring:</b>                 | Served Galvanized Steel Wire         |
| <b>Fiber Containing Tubes:</b>   | 2                                    |
| <b>Total Number of Elements:</b> | 5                                    |
| <b>Number of fibers:</b>         | 24                                   |
| <b>Waterblocking:</b>            | Dry Waterblocking, Gel between tubes |
| <b>Rip-Cord:</b>                 | Yes                                  |
| <b>Outer Jacket Color:</b>       | Black                                |
| <b>Marking:</b>                  | Per request                          |

## Standards

|                              |   |
|------------------------------|---|
| <b>Applicable Standards:</b> | IEC 60794, IEC 60794-1-21/22, TIA/EIA-568 |
| <b>Flammability Rating:</b>  | IEC 60754                                 |
| <b>Installation:</b>         | Guidelines as per IEC TR 62691            |

## Performance

|   |             |
|---|-------------|
| <b>Max. Installation Tensile Load :</b>   | 6000 N max. |
| <b>Max. Residual Tension (MRS) :</b>      | 3600 N max. |
| <b>Impact Resistance:</b>                 | 10 N*m      |
| <b>Impact Resistance:</b>                 | 3 cycles    |
| <b>Max. Crush Resistance:</b>             | 500 N/cm    |
| <b>Min. Bend Radius for Installation:</b> | 20xD mm     |
| <b>Min. Bend Radius for Operation:</b>    | 20xD mm     |
| <b>Repeated Bending:</b>                  | 25 cycles   |
| <b>Torsion (L=125 x d):</b>               | 10 cycles   |
| <b>Drip Test:</b>                         | 80 °C       |
| <b>Max. Operating Temperature:</b>        | +70 °C      |
| <b>Min. Operating Temperature:</b>        | -40 °C      |
| <b>Max. Installation Temperature:</b>     | +55 °C      |
| <b>Min. Installation Temperature:</b>     | -20 °C      |
| <b>Max. Storage Temperature:</b>          | +70 °C      |
| <b>Min. Storage Temperature:</b>          | -40 °C      |
| <b>UV Resistance:</b>                     | Yes         |
| <b>Waterblocking:</b>                     | Yes         |