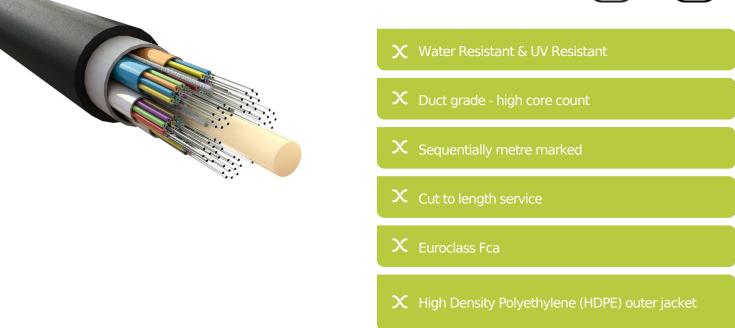
# Excel Enbeam OS2 G.652.D Fibre Cable Multi Loose Tube 144 Core HDPE Fca Black

## Item Code: 330-144







### **Product Overview**

Enbeam OS2 Singlemode G.652.D Fibre Cable Multi Loose Tube 144 Core 9/125 HDPE Fca Black, part of a huge range of OS2 fibre optic cables fully stocked at Mayflex.

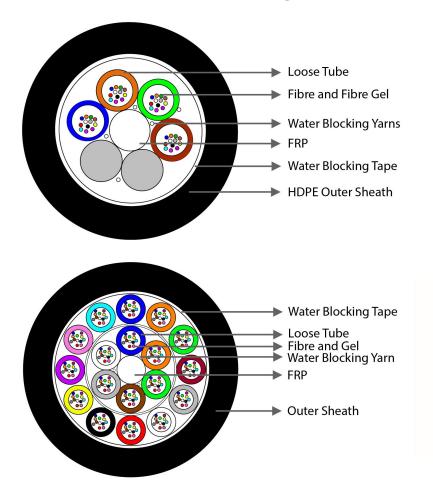
The Enbeam external multi loose tube fibre has been designed for installation in underground duct systems.

The cable is constructed from multiple gel filled loose tubes around a central strength member, overlaid with water blocking yarn and a water blocking tape then covered with a High Density Polyethylene (HDPE) outer jacket, allowing high core count fibres to be installed into the access network from 12 to 432 fibre core counts.

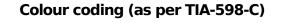
### **Product Specifications**

| Feature  | Values            |
|--|-------------------|
| Number of Cores                                | 144               |
| Type of tube                                   | Loose tube        |
| Number of fibres per tube                      | 12                |
| Fibre type                                     | Single mode 9/125 |
| Category                                       | OS2               |
| Outer sheath material                          | HDPE              |
| Outer sheath colour                            | Black             |
| Reaction-to-fire class according to EN 13501-6 | Fca               |
| Outer diameter approx.                         | 13 mm             |





#### **Product drawing**





For fibre core counts above 12 the colour sequence is repeated with the addition of a mark every 70mm for cores 13-24 and two marks for 25-36 and so on.



## **Cable specifications**

| Features                      |            | Values                                       |
|-------------------------------|------------|--|
| Weight (kg/km)                | 12-24 core | 55.0 (nominal)                               |
|                               | 48-72 core | 55.0 (nominal)                               |
|                               | 96-core    | 80.0 (nominal)                               |
|                               | 144-core   | 130.0 (nominal)                              |
|                               | 192-core   | 145.0 (nominal)                              |
|                               | 288-core   | 170.0 (nominal)                              |
|                               | 432-core   | 200.0 (nominal)                              |
| Number of loose tubes/fillers | 12-core    | 1/5  |
|                               | 24-core    | 2/4  |
|                               | 48-core    | 4/2  |
|                               | 72-core    | 6/0  |
|                               | 96-core    | 8/0  |
|                               | 144-core   | 12/0   |
|                               | 192-core   | 16/2   |
|                               | 288-core   | 24/0   |
|                               | 432-core   | 36/0   |
| Embedding strength member     | Туре       | FRP  |
| Loose tube filling compound   |            | Jelly  |
| Water blocking material       |            | Water blocking yarn + water<br>blocking tape |
| Outer sheath                  | Material   | HDPE   |
| Tensile strength              |            | 2000 N                                       |
| Crush resistance              |            | 2000 N                                       |
| Minimum bending radius        |            | 20D  |



### **Fibre specifications**

| Features                                  |                                   | Values               |
|---|-----------------------------------|----------------------|
| Attenuation                               | @1310 nm                          | ≤0.35 dB/km          |
|   | @1550 nm                          | ≤0.21 dB/km          |
| Chromatic Dispersion Coefficient          | 1285 nm - 1330 nm                 | ≤3.5 ps/km·nm        |
|   | @1550 nm                          | ≤18 ps/km·nm         |
| Zero Dispersion Wavelength, $\lambda 0$   |                                   | 1300-1324 nm         |
| Zero Dispersion Slope                     |                                   | ≤0.092 ps/(km·nm2)   |
| Cut-off Wavelength, λcc                   |                                   | ≤1260 nm             |
| Polarization mode dispersion              | Individual fibre                  | ≤0.2 ps/√Km          |
|   | Design link value (M=20, Q=0.01%) | ≤0.1 ps/√Km          |
| Cladding Diameter                         |                                   | 125±0.7 μm           |
| Cladding Non-circularity                  |                                   | ≤1.0%                |
| Primary Coating Diameter                  |                                   | 245±10 μm            |
| Core Concentricity Error                  |                                   | ≤1.0 µm              |
| Coating - Cladding Concentricity<br>Error |                                   | ≤0.8 μm              |
| Fibre Curl Radius                         |                                   | ≥4 m                 |
| Mode Field Diameter                       | @1310 nm                          | 9.2±0.4 μm           |
| Point discontinuity                       |                                   | ≤0.5 dB              |
| Proof Stress Level                        |                                   | ≥100 kpsi (0.69 GPa) |
| Coating strip force                       | Peak                              | 1.3-8.9 N            |

#### Standards

| Applicable standard | Subject   |
|---------------------|---|
| IEC 60793-1-1:2022  | Optical fibres - Part 1-1: Measurement methods and test procedures - General and guidance |
| IEC 60793-1-20:2014 | Optical fibres - Part 1-20: Measurement methods and test procedures - Fibre geometry      |
| IEC 60793-1-21:2001 | Optical fibres - Part 1-21: Measurement methods and test procedures - Coating geometry    |
| IEC 60793-1-22:2001 | Optical fibres - Part 1-22: Measurement methods and test procedures - Length measurement  |

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| IEC 60793-1-30:2010                        | Optical fibres - Part 1-30: Measurement methods and test procedures - Fibre proof test  |
|--|---|
| ITU G.652.D                                | Characteristics of a single-mode optical fibre and cable  |
| EN 50173-1:2018                            | Information technology. Generic cabling systems -<br>General requirements   |
| EN 50575: 2014 + A1: 2016                  | Power, control and communication cables — Cables for general applications in construction works subject to reaction to fire requirements  |
| ISO/IEC 11801-1:2017                       | Information technology - Generic cabling for customer premises: Part 1 General Requirements   |
| ANSI/TIA 568-3.D                           | Optical Fiber Cabling and Components Standard   |
| ANSI/TIA/EIA 598-D                         | Optical Fibre Cable Colour Coding   |
| RoHS-II/-III (2011/65/EU & 2015/863): 2023 | Our products, demonstrate full adherence to the regulatory stipulations of the EU Directive 2011/65/EU (RoHS-II) and its corresponding delegated directive 2015/863 (RoHS-III). |
| WFD: 2023                                  | Compliant to Waste Framework Directive  |
| SCIP: 2023                                 | Compliant - Does Not Contain Substances of Concern In articles as such or in complex objects (Products)   |
| POPs (EU) No 2019/1021                     | EU Regulation for the restriction of Persistent Organic Pollutants.   |

#### **Part Number Table**

| Part Number | Description  |
|-------------|--|
| 330-012     | Excel Enbeam OS2 G.652.D Fibre Cable Multi Loose Tube 12 Core HDPE Fca<br>Black  |
| 330-024     | Excel Enbeam OS2 G.652.D Fibre Cable Multi Loose Tube 24 Core HDPE Fca<br>Black  |
| 330-048     | Excel Enbeam OS2 G.652.D Fibre Cable Multi Loose Tube 48 Core HDPE Fca<br>Black  |
| 330-072     | Excel Enbeam OS2 G.652.D Fibre Cable Multi Loose Tube 72 Core HDPE Fca<br>Black  |
| 330-096     | Excel Enbeam OS2 G.652.D Fibre Cable Multi Loose Tube 96 Core HDPE Fca<br>Black  |
| 330-144     | Excel Enbeam OS2 G.652.D Fibre Cable Multi Loose Tube 144 Core HDPE Fca<br>Black |
| 330-192     | Excel Enbeam OS2 G.652.D Fibre Cable Multi Loose Tube 192 Core HDPE Fca<br>Black |



| 330-288 | Excel Enbeam OS2 G.652.D Fibre Cable Multi Loose Tube 288 Core HDPE Fca<br>Black |
|---------|--|
| 330-432 | Excel Enbeam OS2 G.652.D Fibre Cable Multi Loose Tube 432 Core HDPE Fca<br>Black |

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